

The Times and Register.

Vol. XXIV, No. 6.

NEW YORK AND PHILADELPHIA, FEBRUARY 6, 1892.

Whole No. 700.

	PAGE		PAGE		PAGE
CLINICAL LECTURE.			Diagnosis Between Meibomian Cyst and		
LITHÆMIA—ACUTE ARTICULAR RHEUMATISM—PNEUMOTHORAX. By James M. Anders, M.D.			Hordeolum. <i>Keyser</i>		
.			133		
ORIGINAL ARTICLES			HOWARD HOSPITAL:		
NUTRITION IN DISEASES. By Wm. H. Walling, M.D.			Extracts from Clinic of Dr. Atkinson		
.			133		
MEDICAL CHARITY—ITS USE AND ABUSE. By H. F. Palen, M.D.			EDITORIAL.		
.			ALMSHOUSE MANAGEMENT		
129			134		
THE USE OF THE RUBBER TUBE IN GENERAL PRACTICE, AND PARTICULARLY IN SURGERY. By Thomas H. Manley, M.D.			ANNOTATIONS.		
130			Our Supply of the "Diphtheria Number" is		
VACCINATION. By Ernest B. Sangree, A.M., M.D.			Almost Exhausted		
131			134		
ACTION OF THE AMIDE GROUP ON THE WASTING ANIMAL ECONOMY. Continued by Profs. Dixon and Zuill.			The Trial of Dr. Harris		
132			134		
THE POLYCLINIC.			A Remarkable Case		
JEFFERSON HOSPITAL:			134		
Urine at Fault. <i>Farvin</i>			Newspaper Publishers Relations with the Post Office Authorities		
132			135		
Difference Between Iritis and Conjunctivitis. <i>Thomson</i>			LETTER TO THE EDITOR.		
132			Influenza in Wayne County, Pa. <i>Barckley</i>		
Operated by Extraction on a Congenital Cataract. <i>Thomson</i>			135		
132			THE MEDICAL DIGEST		
CHILDREN'S HOSPITAL:			Arsenite of Copper for La Grippe. <i>Western Med. Rep.</i>		
Epiphyseal Fractures. <i>Wharton</i>			135		
133			The Influenza Bacillus. <i>British Med. Jour.</i>		
MEDICO-CHIRURGICAL HOSPITAL:			135		
Eczema of the Finger Tips. <i>Shoemaker</i>			Death of the Duke of Clarence and Avondale. <i>Lancet</i>		
133			137		
MEDICO-CHIRURGICAL COLLEGE:			Hepatic Affections. <i>Med. Press</i>		
To Prevent Adhesions of the Iris. <i>Keyser</i>			138		
133			Renal Affections. <i>Med. Press</i>		
			138		
			Brom. Ethyl Narcosis. <i>Med. Press</i>		
			138		
			Serious Symptoms Arising from Retention of Nasal Discharge. <i>Hunt</i>		
			138		
			Collapse from Vomiting and Diarrhœa Treated by Intravenous Injection of Salt Solution. <i>Sturges</i>		
			139		
			Surgical Treatment of Neuralgia. <i>Rose</i>		
			139		
			Bleeding from Pneumonia. <i>Foy</i>		
			140		
			The Nitrate of Silver Treatment of Epididymitis. <i>Gotheil</i>		
			141		
			Ocular Conditions. <i>Sei i-Kwai</i>		
			141		
			Dermatol. <i>Sawyer</i>		
			141		
			A Specific For Tetanus Discovered. <i>Med. Record</i>		
			141		
			Specific Medication. <i>Eclectic Med. Jour.</i>		
			142		
			Gout of the Penis. <i>Brit. Med. Jour.</i>		
			142		
			Trephining for Severe Headache. <i>Prewitt</i>		
			142		
			The Bicycle in the Treatment of Nervous Diseases. <i>Hammond</i>		
			142		
			Hygiene in the Barber Shop. <i>Texas Sanitarian</i>		
			143		
			Gun shot Wound of the Liver. <i>Lancet-Clinic</i>		
			143		
			The Treatment of Eczema in the Different Hospitals of Paris. <i>Med. Press</i>		
			143		
			The Prophylaxis of Inherited Inebriety. <i>Stewart</i>		
			144		
			An Experiment in Sewage Irrigation. <i>Lancet</i>		
			144		
			The Spray in Operation on the Brain. <i>Maritime Med. News</i>		
			145		
			Bromoform in Pertussis. <i>Mellish</i>		
			145		
			Diagnosis of Sore Throat in Children. <i>Simon</i>		
			145		
			Benzol in Influenza and Pneumonia. <i>Robertson</i>		
			146		
			An Explanation of the Effects of Quinine		
			146		
			Salipyrine for Influenza. <i>Althaus</i>		
			146		
			Death from Pulling on a Stocking		
			146		
			MEDICAL NEWS AND MISCELLANY.		
			147		
			NOTES AND ITEMS		
			iv, viii		
			A Great Convenience in Practice		
			vi		

Clinical Lecture.

LITHÆMIA—ACUTE ARTICULAR RHEUMATISM—PNEUMOTHORAX.

By JAMES M. ANDERS, M.D.,
Professor of the Theory and Practice of Medicine, Clinical Medicine and Hygiene at the Medico-Chirurgical College of Philadelphia.

LITHÆMIA.

THE first patient, Jennie Helmbold, forty-two years of age; married; a dressmaker by trade, gives us the following family history: Her father died of renal dropsy and heart disease; her mother is still living, and is subject to vertigo. The patient had typhoid fever at twelve years of age, and about ten years ago had acute nephritis after exposure; had œdema of the limbs, lumbar pain and dark red urine, scanty in amount. She has progressively been growing obese for the last twenty five years (since marriage). She now complains of anorexia, sour taste in mouth, flatulence, with dull oppressive pain in epigastric region; also in the lumbar region; general lassitude and weakness in the knees; has frequent desire to micturate (twice at night), and passes but a small amount of reddish, sandy urine. The tongue has a moist, yellow coating, and has enlarged and reddened papillæ. The bowels are constipated. Furred tongue over the center; to-day only slightly so. Notice, however, that along the edges and tip it is quite red, and the papillæ enlarged, a complete clinical picture of chronic gastric catarrh. But there are other features which it is well for us to consider. She has distress in the lumbar region, lassitude and weakness and aching about the knees. Her skin is harsh, and over her limbs is particularly dry, and even scaly.

She has no marked nervous symptoms, save that she is somewhat neurasthenic. Now the urine, when she presented herself at the hospital, was small in quantity. She was obliged before coming to the hospital to micturate several times during the night, and almost immediately the urine would deposit urates in abundance; also uric acid crystals in the form of reddish clouds.

Now, when you get a history such as this, you must make the diagnosis of lithæmia, which means, simply, an excess of uric acid in the blood. You all know that the last product of combustion of all nitrogenous materials in the system should be urea. If anything arrests complete combustion, we have other products of combustion of a lower grade. In certain diseases of the liver, we have leucin and tyrosin formed, and excreted by way of the kidneys, instead of urea. We have here uric acid, which ought to have been converted into urea before elimination; before the nitrogenous materials enter the blood. This process takes place in the liver normally. Now you may find this condition associated with many cases of chronic gastric catarrh, but it also rarely exists without any catarrhal condition of that organ. We know that certain persons taking the normal amount of nitrogenous food, and only the normal amount, and receiving the proper amount of oxygen and exercise; leading, in other words, regular lives—of good habits, may have uric acid in the blood and in the urine. Under these circumstances we have an inherited form of this peculiar condition. In these cases there seems to be a lack of energy on the part of the liver. Whether it be functional in all cases we are not prepared to say; it may be organic. We have here a primary condition. (I will not say disease, because it seems to have no pathology except uric acid in the

blood.) This condition is often confounded with certain nervous complaints. Remember that the nervous symptoms in lithæmia come and go for months and years without becoming apparently any more grave, while in any affection of the brain the condition would be apt to be a progressive one. In addition, in disease of the brain you would have ophthalmoscopic appearances not found in lithæmia, viz., choked disc, hemorrhages into the retina, etc. It is easy to distinguish between chronic gastritis and lithæmia, viz., by examining the urine. In lithæmia, soon after the passage of the urine, large deposits of uric acid and the urates may be found, and with the aid of a microscope the crystals may also be seen in the urine and blood. When found, as in this patient's case, you may know you have to deal with lithæmia.

In addition to chronic gastritis and nervous conditions, we also have, in some cases, disturbance of the circulatory system. There is an early tendency to atheromatous degeneration of the blood-vessels, as manifested by their hardness. These alterations are not present in our patient as yet.

The course of this disease is very chronic; even though not treated, the patients suffer for years before developing secondary symptoms; but if the patient is not willing to follow the advice of the physician, the disease finally develops graver conditions—nephritic colic, calculi, gout and oftentimes even chronic contracted kidney.

Now the treatment is very important. We must overcome the gastric catarrh and assist oxidation of nitrogenous material. The first thing to which we must direct attention is the diet and the mode of living, with a view of relieving the system of some of this work of oxidation. We restrict the patient's diet according as the digestive troubles are located, chiefly in the stomach or bowels. Here we have gastric indigestion especially. In some cases you will have intestinal indigestion, constipation, sometimes alternating with diarrhoea. In these cases, you would take away all starchy, saccharine and fatty food, and give green vegetables, along with milk, eggs, and the lighter forms of meat. But if, as in this case, the gastric digestion is at fault, then it is our duty, not only to restrict the diet as to vegetable substances, but also the animal portion. We can give here the green vegetables, with fruits and semi-animal food, such as milk and eggs, also oysters in moderation, fish and sweet-bread.

We assist oxidation by exercise. When we take exercise we use three or four times as much oxygen as when at rest. Not only must we recommend exercise, but recommend it judiciously, to be taken several hours after meals, when the uric acid, instead of being converted into urea, is entering the blood. It is at this time—not less than three hours after meals—that we ought to assist oxidation. The best form of exercise is walking, and this we will have our patient attend to; never, however, beyond the point of fatigue.

Then we have other remedies. Nitric acid stimulates the liver, its administration being attended by increased flow of bile, a fact that has been demonstrated over and over again, experimentally. It also assists oxidation and gives to uric acid another molecule of oxygen, converting it into urea. The acid must be given three hours after meals, or what would, perhaps, be safer, an hour and a half before each meal, when the uric acid is entering the blood. We shall give m v of this acid, well diluted, three times a day, three hours after meals. No other remedy fulfills these indications with the same efficiency.

Alkalies fulfill some of the indications, and when the acid does not agree you may give alkalies, and again three hours after meals.

You must, at the same time, attend to such symptoms as constipation and diarrhoea, and, as a rule, where you have gastric catarrh, as here, it is well to begin with the salines, for their effect upon the gastric mucous membrane. We shall prescribe for this lady a teaspoonful of Carlsbad salt in water, to be taken in divided doses, fasting in the morning.

ACUTE ARTICULAR RHEUMATISM.

This man is forty-five years of age, and his occupation that of engineer on an ocean steamer. This occupation he has followed for about ten years, during which time he has been, of course, subject to sudden alterations of temperature. His family history is negative, and he himself has always been well until the onset of the present disease. It was on the 14th or 15th of October when he received a severe wetting. Not immediately following, but two or three days later, he developed symptoms of synovitis in the left knee joint, then, almost immediately, the right knee-joint, and later the left elbow also became affected. Now he gives us a very distinct history of rheumatism, although in mild form. The joint first affected became swollen, slightly red, and was tender to the touch. He, however, curiously enough, followed his occupation until he came to the hospital, or for a week after he became affected. He says that when he was perfectly quiet he had not much pain, but on moving about there was a great deal. The right knee, in a similar manner, showed a moderate degree of swelling, with a little redness. A curious and striking fact, in all cases of acute articular rheumatism, is that when one joint begins to improve another is likely to become affected. Affection of the left elbow here followed subsidence of the symptoms in the left knee. The elbow was more swollen than either knee, and was more red and painful. The joint is still tender and slightly hot, but not swollen, particularly. He has not developed any complications.

Now, in the diagnosis of these very mild cases of rheumatism, we often have the greatest difficulty, because cases of non-rheumatic inflammation of the joints often, at their commencement, simulate these cases very closely. Bear in mind that when you have a case of non-rheumatic inflammation of a joint, you are apt to have it located in only one joint, and there it is likely to linger for a long time.

We have, very often, in cases of secondary syphilis, or, rather, just before the development of marked secondary symptoms, what patients regard as rheumatic pains in the joints and muscular structures near them. If not careful, these are apt to mislead you. As intimated, they are apt to precede the secondary symptoms, hence come on two or three months after the date of the contraction of the primary lesion. This patient has shown no indications of syphilis, and gives no such history. Neither has he had gonorrhoea, which is sometimes followed by arthritis, which seems to attack the knee-joint most frequently. In gonorrhoeal arthritis, you are not apt to have such a clinical history as we obtained here. Instead of manifesting itself in the knee, and then, as the local symptoms there subside, manifesting itself in the arms, you are apt to have a history of gonorrhoea, and implication of one, or possibly two, joints (usually the knee), which proves much more obstinate than articular rheumatism.

Having made the diagnosis of rheumatism, what form is it, acute articular or commencement of the

chronic
lowing
as he
migr
look
form
suba
does
ment

Ar
prog
ture
tende
patie
howe
that
quen
over
lar rh
well-
fuse
witho
est ca
mild
remer

Th
cond
cotton
of acu
nel sh
cation
a little
and i
ease,
lead-
Alwa
from

Som
all ca
pyrin
acute
the c
most
salicy
drug
of the
times
so tha
organ
turbec
doses
duced
from s

On
rapid
reco
reason

And
in the
anæm
someth
but it
pallor
genera
the ca
during
salicyl
this m
four h
iron af

chronic form? Whenever you have rheumatism following exposure, when you have it as well marked as here, with redness and swelling, and with the migratory tendency well marked, as in this case, we look upon it as acute articular rheumatism of mild form. Every acute attack may, however, merge into subacute and chronic rheumatism, and whether it does or does not, depends very much on the management of individual cases of acute rheumatism.

Another thing that is practically important is the prognosis. Naturally, in a case where the temperature and pulse are normal, with only slight local tenderness over a few joints, you would think the patient about or nearly well. We often observe, however, in cases not well marked at the beginning, that they recede and almost entirely recover, but frequently have a relapse. This may happen over and over again. It is only in those cases of acute articular rheumatism in which we have from the beginning well-marked symptoms, high temperature, with profuse perspiration, that we are apt to have recovery without a relapse, or fresh exacerbations. The longest cases, as a rule, are those that are comparatively mild at the beginning, and that is a point well worth remembering.

The treatment, even in the mild forms, should be conducted with care. Always place about the joints cotton or flannel bandages. If you have a severe case of acute articular rheumatism, you should put a flannel sheet over the patient. You can make local applications of anodyne liniments to relieve the pain, and a little later an ointment composed of lanoline, iodine and iodide of potash. In the beginning of the disease, when the pain is very great, I frequently use lead-water and laudanum locally upon the joint. Always, when you want to get a continuous action from such a lotion, surround the joint with oiled silk.

Some authorities are very much in favor of treating all cases, even at the beginning, by the use of antipyrine. Certainly antipyrine has a good effect in acute rheumatism, and it seems to me the more acute the case, the better is its influence. The treatment most in vogue at present is the administration of salicylate of sodium, the administration of which drug is always attended with a marked amelioration of the local symptoms. However, this drug sometimes has a bad influence on the heart and stomach, so that it must be used with great care when these organs are disturbed. Where the stomach is disturbed we may give oil of wintergreen in 10 minim doses every two hours until tinnitus aurium is produced. In this way we get much the same effect as from salicylic acid or salicylate of sodium.

On salicylate of sodium this man has improved rapidly, although we cannot feel positive that he will recover speedily until he is entirely well, for the reasons before stated.

Another feature, which is almost invariably present in the milder forms of acute articular rheumatism, is anæmia. The patient thinks his occupation has something to do with the causation of his anæmia; but it is well, before discharging a patient, if he have pallor of the tongue, lips and conjunctivæ, along with general debility, to give some form of iron. Where the cases are at all severe, iron must always be given during convalescence. In addition to small doses of salicylate of sodium (gr. v every two hours), we gave this man π_x of tincture of chloride of iron every four hours, which is one of the best preparations of iron. When he is able to go about we will give him iron after meals in somewhat larger doses.

PNEUMOTHORAX

The next case I have to show you is one you have seen before, in Prof. Laplace's clinic, when he removed the laminae of the lower dorsal vertebræ. You may remember that in the operation the pleural cavity was accidentally opened; indeed, we may say this difficult operation could not have been performed without opening the pleural cavity. Under these circumstances there could have been but one result, namely, that air must have entered the pleural cavity, causing pneumothorax. In this case the air entered from without. I may say that we have air in the pleural cavity from many other causes, chief among which stands phthisis. A large excavation in the lungs is very apt to ulcerate into the pleura cavity. Air then enters the cavity from within, and as soon as it does, the whole pleural cavity is rapidly filled, firmly pressing the lungs against the spinal column, in a manner analogous to pleurisy with effusion. We have the same condition as a result of injury, in punctured wounds of the chest, which are often followed by all the physical signs of pneumothorax. Those cases in which there is such an opening that air passes in and out of the pleural cavity with every respiratory movement, are cases of open pneumothorax. In such cases you will have less accumulation of air than if the opening were valvular, allowing air to pass in, but not so readily out. In these latter cases you sometimes see great distension of the side, and a great deal of compression of the lungs. There are then three varieties of pneumothorax: Open, closed and valvular. In those cases in which you have the closed variety, and even in some of the valvular variety, you have a great accumulation of air in the pleural cavity, and sometimes, in consequence, very urgent symptoms from the onset. In these cases, and especially in those that occur during the latter stages of acute phthisis, for instance, you have most urgent symptoms, and death usually follows in a few days or weeks. The patient becomes almost collapsed; you will find a weak, feeble pulse, perspiration, and great pain and difficulty in breathing. These cases are always very unfavorable, especially where the underlying condition or primary disease is such a one as acute phthisis, in its later stages, with combined high temperature, profuse sweats, and great debility.

The man whom we see to-day has well-marked physical signs of pneumothorax, which must always be obtained before we make a diagnosis. I care not how great the pain and dyspnoea, how feeble the pulse or what is the appearance of the patient's face as to cyanosis, and here these symptoms are all well-marked, you have no right to make a diagnosis of pneumothorax without careful physical exploration, because you may have all of these symptoms without pneumothorax. We notice that the affected side is considerably distended, and that there is a bulging in the intercostal spaces. In this case the liver is displaced, so that we have pulmonary resonance much lower down than normal. The same condition is found over the back. We obtain everywhere a tympanitic percussion sound. On auscultation we hear the air rushing back and forth, giving a distinctly amphoric type of breathing. In some instances the breath-sounds are greatly suppressed. The physical signs, together with the history in this case, complete diagnosis of pneumothorax in this patient's case.

When pneumothorax, due to other causes, cures itself, it does so in the following manner: You have,

instead of a pleural cavity filled with air, a liquid gradually poured into the sac. The air is displaced by the liquid, which in turn is finally absorbed. You can understand, however, that if nature attempts a cure in the case before us, we will have not a serous, but a purulent effusion—an empyæma—which is itself a grave disease, and one rarely recovered from. Hence, when pneumothorax occurs under these circumstances the prognosis is very grave, and in this case we shall have an empyæma, probably followed by a fatal termination of the disease, since the man was very weak when operated upon, in consequence of the injury he had received.

The treatment which this man is getting is entirely supportive, and his side is kept carefully bandaged.

Note.—The patient died two days later, and some pus was found at the base of the pleural sac.

Original Articles.

NUTRITION IN DISEASE.

By WM. H. WALLING, M.D.

PHILADELPHIA, PA.

AS many diseases, especially those of a wasting and malignant character, are regarded as being caused primarily by insufficient or perverted nutrition, feeding, and in some cases, overfeeding, is recognized as being the most important factor in the treatment.

Fibroid tumors, although not generally classed with malignant growths, frequently degenerate into cancer. In the writer's experience, this class of tumors (fibroids) have been found in nearly, if not quite every instance, in persons whose supply of proper food was either very irregular or quite insufficient. The women of the African race, in this country, seem especially prone to the development of fibroids.

The problem presents itself as to how such growths develop. And why should apparently healthy tissue revert to the embryonic type (if it does so) and develop into malignancy? We were once taught that these embryonic cells were present from the first, and that from some unexplainable cause they developed into growth at a certain period of life, more or less definite.

The facts, however, seem to be that the body, being composed, as it is, of albuminoids, fats, carbohydrates, salts and water (taken into the system through the alimentary canal, to which oxygen must be added, which is received mostly from the air we breathe); that nature is constantly building, new tissue is being formed to replace waste and wear, and if all the elements are present in proper proportion, other things being equal, healthy tissue results; but as nature builds with the materials at hand, having no choice, the cell-structure will represent such material. If the proteids or plastic elements of nutrition are not supplied, the next most available substances are used, and the result may be the formation of a lower order of tissue, as in fibroid or other growths. If this does not take place, the economy suffers nevertheless, and is incapable of properly performing its functions, the individual being proportionally weak and incapacitated for work.

This law of the proper relation of the constituent elements holds good throughout the universe, whether it be applied to the air, water, the earth or to its inhabitants. In the Southern States the plant-

ers grow cotton upon a certain field for a few years, the crop becoming smaller and less profitable each year, until finally the field is abandoned and left to recuperate. It is soon covered with a growth of pine trees called "old field pines." After a term of years, the soil will again bear cotton. If, however, the ground be fed with a fertilizer needed for the growth of the cotton plant, it will produce profitable crops indefinitely.

Whilst there is a struggle towards development in nature, the product takes type from that which generates it. The farmer recognizes this law when he selects his seed corn, potatoes or other produce, choosing only the earliest in time of maturing and the best formed of the roots and grains with which to plant his crop. Then, given a proper soil and cultivation, with a favorable season, a profitable harvest is realized.

As before stated, in the healthy human body the sowing and reaping go on daily, and if the proper nutrition be maintained, the vigor and ability for work are in proportion.

It is a significant fact, that of the whole number of teeth of the adult-human being, about two thirds are mechanically formed for eating meat, and about one third for vegetables. Much has been said in favor of a vegetable diet, and we occasionally find an aged person who attributes his or her long life to strict vegetarianism.

In New England, baked beans are a staple article of diet. Dr. J. H. Salisbury regards the bean regimen as a prolific source of consumption, so prevalent in the New England States. In order to test the question, the doctor, at one time experimented as follows: He "placed himself and six strong, healthy laboring men upon an exclusive diet of baked beans, milk and coffee. They were sedentary, save that in the morning and evening they all marched out in military order upon the street for exercise. Almost immediately there was diarrhœa, followed in all the cases (in about fourteen days) by consumption of the bowels."

(Dr. Salisbury found that the diarrhœa was caused by the alcoholic formation of the baked beans, producing alcohol, carbonic acid gas and vinegar.)

Dr. Ephraim Cutter, in commenting upon this experiment, says: "If any one doubts this result, he is asked to live on the same diet exclusively for the same time, and report the results, which were so uniform in the above cases that there is no hesitation in predicting like issues."

Can life and health be maintained upon an exclusively meat diet? Clinical experience teaches that in many chronic diseases a rigid adherence to such a regimen is absolutely essential to a restoration to health.

Drs. Salisbury and Cutter have repeatedly proven that lean beef would stand all the tests of a healthy food, hence its adoption as a basis in their methods of treatment.

In consumptive patients, the presence of the yeast fungus in the blood, and its rapid development when vegetable foods were largely used, has been sufficiently demonstrated, as also that when such patients were placed upon a diet of broiled beef exclusively, they rapidly improved, and many entire recoveries are recorded.

Valuable as is the Cutter method, that of finely-chopped and broiled lean beef, there is such an utter aversion to food of any kind in many cases, that some modification of the treatment would seem to be necessary. This I advance for two reasons, the first

being that forced or over-feeding, by the natural method, cannot be resorted to; and, second, that rectal alimentation, by such means, is out of the question.

Débove, of Paris, has made use of powdered beef in his method of forced feeding (gavage), and described a process for preparing it. Success in the treatment of disease by such means was so marked that it attracted widespread attention; and other physicians of Paris, among them, Dr. Dujardin-Beaumetz, added emphatic testimony in favor of this form of alimentation.

Valuable as is Cutter's chopped beef, and even Débove's powder, in both cases the whole burden of digestion rested upon the stomach of the patient, which was in very many cases, unable to perform its function.

The powdered meat of Débove was a step in advance of Cutter's chopped beef, experiment showing the digestive assimilation to be as five to one in favor of the former.

It remained, however, for a South American chemist, Dr. Vincenzo Marcano, to discover the ideal process of preparing an almost, if not quite, perfect beef food, which meets all of the requirements of such an aliment, with no objectionable features.

Dr. Marcano found that the juice of the pineapple furnished a digestive ferment which gave a peptone entirely devoid of bitterness or unpleasant taste, as distinguished from such product when made with animal pepsin.

This product has been placed before the profession in America and elsewhere, under three forms—as Mosquera's Beef Meal, Mosquera's Beef Cocoa, and Mosquera's Beef Jelly.

In order to fully understand the value of these preparations, let us make an imaginary visit to the laboratory of Parke, Davis & Co., of Detroit, where the above products are manufactured upon a large scale.

This is about what will be seen:

Here the fresh meat is received. The large, wooden cases, looking very much like old-fashioned clothes chests, give cover to an inner box of galvanized iron, a span of some four inches between the wood and iron being completely filled with broken ice. Raising the lid and scraping away the ice immediately over the iron box, this may be opened, disclosing the meat itself, which will be observed as absolutely lean and freed from all veins and cartilaginous tissue. It is trimmed as closely as human skill will permit, and cut into pieces not larger than an ordinary hen's egg.

We pass from here into the digesting room, and the first thing that attracts our attention is the chopping-machine. This is a worm-screw device which takes the meat at the rate of two tons per hour, and forces it through a plate perforated with holes about one-eighth of an inch in diameter. It comes from this machine looking like finely chopped sausage meat, and is then carried in tubs to platform-scales to be weighed and then dumped into the digesting kettles. These are four and a half feet in diameter, steam jacketed, and holding about one thousand pounds of meat each. A rotating paddle, driven by a powerful gearing, dips down to the bottom and is set in motion as soon as the meat has been thrown in. Steam is now turned on, and in the course of half an hour the hitherto ice-cold meat is raised to a temperature of 120° to 130°.

At this point the pineapple juice is added. Almost immediately the meat is observed to soften, and within a few hours the reeking, red pulp, which originally went into the pan, becomes a gravy-like

liquid of a grayish color. As soon as this change has been affected, the temperature of the pan is raised, and the water contained in the mixture is driven off. This yields Mosquera's Beef Meal, by far the most concentrated and palatable representative of lean beef ever presented for the use of the medical profession.

In its manufacture nothing whatever has been taken from the beef except water, neither has anything been added to it, therefore the final product must necessarily represent all that is valuable. Further than that, more than half its substance is in the form of peptone and albumose, the products natural to digestion, and therefore ready for immediate assimilation without further action on the part of the digestive organs, while the balance is so finely divided as to insure its digestion with a minimum of labor. Furthermore, the preparation, containing no water, or scarcely any, is absolutely permanent and not subject to attack of worms or other insects.

In comparing this product with other beef preparations on the market, I cannot do better than to present the following analysis by Prof. R. H. Chittenden, of Yale University, the same being appended to a paper read before the Philadelphia County Medical Society, May, 13, 1891, as follows:

PERCENTAGE COMPOSITION OF BEEF PRODUCTS, ANALYZED 1891.		CONSTITUENTS.	
		Lieb's extract of beef.	
		Armour's extract of beef.	
		Valentine's meat juice.	
		Wyeth's beef juice.	
		Bovine.	
		Murdock's liquid food.	
		Johnston's fluid beef.	
		Arlington Chem. Co.'s beef peptonoids.	
		Mosquera's beef meal.	
Water (at 100° C.)	20.66	14.63	60.31
Solid matter (at 100° C.)	79.34	85.37	39.69
Soluble in water	0	0	0
Insoluble in water	24.04	28.29	11.30
Phosphoric acid (P ₂ O ₅)	9.13	7.28	4.00
Fat, ether extractives	0.91	1.27	0.78
Soluble in 50 per cent. alcohol	55.72	67.02	29.15
Total nitrogen	9.53	8.80	2.68
Nitrogen of insoluble matter	0	0	0
Insoluble protein matter	0	0	0
Soluble albumin coagulable by heat	0.66	0.68	0.55
Soluble albumoses	0	0	0
Peptone	0	0	0
Total protein matter available as nutrient	0.66	0.68	0.55
Nutritive value as compared with fresh lean beef (lean beef = 100)	0.33	3.10	2.80
			2.40
			72.40
			74.00
			47.20
			143.0
			400.00

Prof. John Attfield, of London, speaking of Mosquera's Beef Meal, says, "This beef meal contains:

In 100 parts.

Stimulating and flesh-forming nitrogenous matter (nitrogen, 10.80)	68.97
Ordinary sweet normal fat	17.83
Normal mineral matter, chiefly phosphates	3.94
Natural moisture	9.26
	100.00

"Ordinary beef contains 77½ per cent. of moisture, this beef meal under 10 per cent., therefore, one pound of this dried and powdered beef represents, in mere weight, four pounds of the original meat.

"Beef simply dried by heat, and then ground to a meal, contains no flesh-forming material and very little soluble, stimulating nitrogenous material. But Mosquera's Beef Meal, made by myself by the Mosquera-Julia method, that is to say by peptonizing beef, not with the ordinary pepsin of the pig, but with their newly-discovered pepsin-like ferment of fresh pineapple juice, and drying and powdering to a meal, contained no less than 41⅔ per cent. of non-coagulated albuminoid material soluble in water."

The value of the product under consideration lies in the ready assimilation by the system, of the contained peptones, and also finely divided state of the unaltered portion of the beef.

Physiologists are discussing the question of the value of peptones as real foods. Adamkiewicz experimented largely, also Plosz, Gergyai and Maly. The three latter concluded that "Peptone fulfills in the organism all the functions of ordinary albumen, and is also applied to the formation of tissue." Adamkiewicz attempted to disprove this, but his experiments led to the conclusion (and this conclusion seems now to be unanimous) that "Peptones do fulfill in the organism all the functions of the albuminous bodies."

While this may be true, yet, in the writer's opinion, the beef meal presents a combination superior to peptones alone. We have here unaltered albumen, which goes to the repair of the tissues, while the peptones greatly facilitate metabolism.

A writer in the *Journal of Balneology*, says, "Is it clear that peptones, even if in further researches they should be found not to be available for tissue formation, may yet be very valuable nutriment for the sick, being capable of replacing albuminous nutrition for months together, and presenting the manifest advantage of being easily and immediately absorbed. A relatively small addition to the food of unaltered albumen would be necessary in order to obviate the waste of albumen in the body, as well as to attain an increase of weight." This indication, as already pointed out, is fully met in Mosquera's Beef Meal.

Prof. Woodbury, in speaking of the great value of the preparation just mentioned, says:

"I have found it especially serviceable in relieving prostration and the effects of fatigue in elderly persons, in the form of a broth, etc. Also in the intestinal disorders of the aged, it serves to support life without taxing the weaker or digestive powers. In pulmonary phthisis, I have seen good results in keeping up the vital powers.

"I would especially mention the use of beef meal broth, seasoned with pepper or capsicum, in cases of alcoholic excess, drink-craving and delirium tremens.

"In all cases of fever, where beef-tea was formerly employed, the strength of the patient can be maintained much better with such an easily assimilated preparation as this.

"In cases of infantile prostration or debility, following bowel disorders, it often becomes necessary to stop the administration of milk, and substitute some other form of nourishment. In such an emergency the strength of the little patient can be supported by mixing beef meal with rice-water or albumen-water, and the patient kept upon this exclusively, for days at a time.

"Many cases of rickets are due to insufficient nourishment in early life. The mother's milk may not be sufficient in quantity or of good quality, or the artificial food may be given too much diluted. In such cases, good, immediate results may be obtained and future difficulties averted by a more generous diet, and especially by an easily assimilated nitrogen, containing aliment, such as beef meal."

It may be further stated that in the use of this beef meal, the fact that it is not a ready-prepared food must be borne in mind, but that it is a concentrated, predigested representative of fresh beef, and must be treated with some intelligence. It is, however, in its general character, miscible with almost any other food, and may be administered in various ways. For instance, mixed with a little chicken or tomato soup, its presence is completely disguised, and the only care necessary is that the consistency of the broth be sufficient to suspend the insoluble portions of the preparation, which are very nutritious.

It is unnecessary for me to say that the most popular and generally consumed form of prepared beef at the present time is the Liebig Extract. This is now made by many of the large beef packers in this country, and as a convenience in the kitchen will always find a wide application, but it is only necessary to refer to the table of analysis which appears above, to see how utterly worthless it is as a food. Imagine trying to nourish a patient on teaspoonful doses of a preparation which, in actual nutritive value, as compared with lean beef at a standard of 100, is but 0.30.

Beef extract will always find some application in therapeutics as a stomachic stimulant, but beyond this it is absolutely worthless, and the importance, therefore, of a preparation like Mosquera's Beef Meal, cannot be overestimated.

A word as to the two other preparations—beef cocoa and the beef jelly. The first is simply a mixture of equal parts of beef meal, powdered Dutch chocolate and sugar, which, upon being added to hot milk, makes a most palatable and nourishing beverage, having no "meaty" flavor. This form of the "meal" will be invaluable in many cases and conditions, not necessary to enumerate.

Beef jelly. This somewhat resembles, in appearance, the ordinary beef extracts, but differs materially from them in composition and effect. It is soluble either in hot or cold water, forming a most nourishing and refreshing "tea." I have given a cupful to patients, after a trying examination or treatment, with very happy effect.

As a refreshing beverage on a hot day, a tumblerful of iced tea, made from this jelly, is very acceptable indeed, as it is so rapidly assimilated. When very much fatigued, I prefer the tea made with hot water.

For rectal alimentation, the beef jelly would be preferable, in some cases, to the beef meal, on account of its solubility, thus favoring rapid absorption, but either may be used, as the physician directs.

The great advantage of these food products, over other preparations of this class, lies in their richness in assimilable nitrogenous material, their palatability and their keeping qualities, three most important considerations.

MEDICAL CHARITY—ITS USE AND ABUSE.¹

By H. F. PALEN, M.D.

"For ye have the poor always with you."

THERE is not a physician within the hearing of my voice, to-night, who will dispute the above Biblical quotation. The first ten years of my professional career have been passed in a manner that has fully convinced me that Camden is blessed with a full quota of poor people, and I shall confine my remarks principally to our immediate surroundings. The first few years I held the position of district physician in the lower wards of our city, and the last six years I have had almost entire charge of our principal charity, viz., the Camden City Dispensary. This experience has given me an opportunity to study charity in its various phases from a medical standpoint, and I shall give you a few deductions of the same. I contend that, from necessity, our professional calling is pre-eminently the most philanthropic of any pursuit a man (or woman) may follow, and charity is dispensed by our hands unstintedly and without measure.

Disease is one of the prime factors of poverty, and therefore the physician is called upon to aid suffering humanity, and relieve it of the galling chains which bind them to poverty. Mr. Abel Smith, Superintendent of our Relief Society, informs me that over fifty per cent. of the appeals for assistance coming to him, the cause is sickness; therefore, it is within our province to materially reduce the demands upon this noble charity by assisting in the "removal of the exciting cause."

Before leaving the first feature of my subject—viz., the "Use of Medical Charity"—I wish to refer to the fact that we, as a society, have managed most beautifully in fulfilling the adage, "Charity begins at home," when, under the guise of the Camden City Dispensary, we obtained the elegant quarters which we occupy to-night, at a cost of \$11,500, which is one of the finest medical halls in the State of New Jersey. I trust that we shall ever have cause to feel proud of the same, and make an effort to get all the legitimate use out of it we can, and at the same time be ever ready to prevent the abuse of it.

Gentlemen, let this not be like a child's new plaything, to be much over-used at first, and then to be cast aside for something else.

Another use of medical charity may consist of supposed certain reputations to be gained by connection with hospitals and dispensaries, with an opportunity for legitimate advertising; but I believe that, if all the motives connected with the advancement of medical schools, and promotion of individual reputations, were eliminated, the pleas to the Legislature "for the relief of suffering humanity" would be less frequent than they are to establish such institutions. The multiplication of free dispensaries in all our large cities has not only a debasing effect upon the population, but works a cruel wrong to the laborious members of the medical profession, whose legitimate profits are interfered with in the misused name of charity. It may be far from a desirable thing to give free treatment to any and all asking for it. There can be no question that the facility with which free medical attendance is secured, at the public expense, tends to degrade and pauperize large numbers of persons who are abundantly able to pay for their treatment. The patient who resorts to a free dispensary, attracted by the name of some prominent physician or surgeon, learns too late that the "great man" is seldom seen

in the clinic room; that he never comes except to use this clinical material as illustrations of his lectures, and that the bulk of the practice is left to the experimentation of students not yet physicians, or to the care of men just out of school, who happen to have secured the favor of the "great man." If the worthless character of the medical attendance at some of these places were generally known, there would be fewer patients taking such risks, and self respect would be preserved, where now, in many instances, the first step toward the almshouse is taken by patronizing a free dispensary. Many of these are in no sense "free," for charges are made for the medicines which more than cover the value of any real service that may be received from the students in charge.

Gentlemen, I contend that every physician connected with the Camden City Medical Society, which indirectly controls this institution, is morally responsible for the abuse of medical charity in our city, and especially is this true of the members composing the staff of Cooper Hospital.

This institution (Cooper Hospital) is one in which we have a pardonable pride. The members of the staff are gentlemen of ability, and all are members of this Society. It has done much to relieve suffering humanity, and is yet in its infancy. Granting all this, I think that its mode of dealing with the people is certainly open to criticism. I have heard some of the managers of the hospital acknowledge that there was too much indiscriminate prescribing being done, but that they were unable to rectify the trouble; they say, "The people come here, and we cannot drive them away." The young resident physicians have charge of the out-door department; they are strangers in our city, and cannot be expected to be able to discriminate who are worthy or unworthy to receive gratuitous treatment and medicine. The most apparent benefit in the discharge of this part of their work consists in the clinical experience they may receive; but nine times out of ten their time is so limited that they can devote but little time to the examination of their patients, but hastily write a prescription, and then sing out, "Who is next?" without giving a thought to the ability of his patient to pay a legitimate fee to a physician. Apropos: During the present epidemic of influenza, I often compounded from fifty to sixty prescriptions per day (the bulk of them coming from the hospital), often being handed three and four prescriptions from one party. I telephoned to the resident physician to condense and limit his prescribing, and received this significant reply from the Superintendent, viz.: "Doctor, if you will find some way of keeping the people away, we will regulate the prescribing." It is surprising how rapidly the "foreign element" "catch on" to any enterprise connected with charity. I have known of sections in this city inhabited by foreigners, who formerly paid their doctor bill, would learn of the dispensary or hospital clinic, and in a remarkably short period the entire element would present themselves as patients, simply to get something for nothing.

There are ample facilities for establishing a first-class clinic at this dispensary, and plenty of deserving material to draw upon; if I am not wrongly informed, the management of Cooper Hospital do not desire the out-door clinic at the present time, therefore, why not consolidate the two clinics and put the matter in the hands of members of this Society who will exercise discrimination? If the two clinics are continued as in the past, a competition for patients will ensue which will put a premium upon pauperism, and the abuse of medical charity will never

¹ Delivered before the Camden Medical Society.

cease; and I might add, right here, that as long as people can resort to a hospital they will do so, as it does not appear quite so degrading as patronizing a free dispensary. I now wish to refer to two important facts that are of vital interest to the medical profession of our city. Since the establishment of the "police patrol system" the practice of surgery has become a thing of the past. Why? Do you ask? Simply this, that as soon as an accident occurs, the first impulse is to run to the nearest patrol box and ring for the "Ding Dong," and hustle the patient off to the hospital without inquiring about the man's social position, or his ability to pay his physician as he was accustomed to do in the past. I have been personally informed by members of the surgical staff that the practice of surgery has vanished, and it is extremely rare to get even a single case of fracture to treat. If this be true with these gentlemen, how about the rest of us general practitioners who have no legitimate means of being known as surgeons? The second fact I wish to refer to is the effect upon our office practice since the establishment of the outdoor department at the hospital. Some members of the staff have informed me that they frequently see people in the receiving room who were formerly their private patients who always paid their bills. I shall leave you to answer the question among yourselves. Personally, I know that in my practice there have occurred numerous instances in which formerly good paying patients have gone to the hospital for gratuitous treatment, and afterward informed me that they were never asked about their ability to pay a legitimate fee.

Now, let us look at the pecuniary aspect of this interesting subject. How many physicians are practicing in our city for love or glory? Are we not all in pursuit of the almighty dollar? If so, can we, as physicians, afford to allow this state of affairs to continue, flourish and increase, to our personal disadvantage? Allow me to digress a moment and present a few figures "which cannot lie." During the year 1891, the following institutions show the number of persons having received gratuitous treatment in our city, viz.: Cooper Hospital, 3,278; Camden City Dispensary, 3,646 (less 1,823 from Cooper Hospital as above); Homœopathic Dispensary, 1,700; total, 8,624, or 11 per cent. of our entire population. Now, if we add to the above summary the number of worthy poor we have treated in our practice during the year, and the number of our citizens who patronize the Philadelphia clinics, and last, but by no means least, the number of professional beats who never expect to pay us, then you will increase the above percentage very materially, and will likewise reduce the ratio of each physician far below one to five hundred. This summary demonstrates one of two things, Camden is either a very poor city, or else too many of our citizens are abusing medical charity. When I located here, ten years ago, we had forty-seven physicians in active practice; since that time we have had an increase in the ranks of ninety-eight, from which we must deduct fifty-five physicians who have either died or left the city, leaving at the present time ninety physicians in practice. Our population is a little less than 60,000, giving us a ratio of one physician to every 650 persons.

The natural inquiry which now presents itself is "Well! what are you going to do about it?" I shall leave you each to frame your own answer. Personally, I only wish to say that we now possess an elegant building that has been dedicated to charity, let us make the best possible use of our present op-

portunity to reach all who may be deserving of medical charity in our city, and at the same time watch with a zealous eye that "little mustard-seed" pauperism, that it may not so abundantly increase as to be a serious obstacle in the way of the present generation of physicians, and much more so to our successors, who may be obliged to grapple with increased abuses of medical charity.

In conclusion, I am pleased to congratulate this Society upon the profitable and satisfactory manner in which the past year has been spent; all of our meetings have been marked by renewed interest and profit, both socially and professionally. Death has kindly passed us by, harmony and good fellowship holds full sway with all of us. With an earnest desire that the ensuing year may be equally as agreeably spent, I shall retire from the position of your Chief Executive feeling that it has been an esteemed honor to fill this chair, and to have the privilege of presiding at the first meeting in our new hall.

THE USE OF THE RUBBER-TUBE IN GENERAL PRACTICE, AND PARTICULARLY IN SURGERY.

By THOMAS H. MANLEY, M.D.,
Visiting Surgeon to Harlem Hospital, New York.

HAVE you a piece of rubber-tubing from three to six feet long in your possession?

If you have not, then procure it at your earliest convenience. This interrogatory and admonition are not intended merely for the isolated country practitioner, but the more pretentious teacher or professor in a most populous city, as well.

There is no apparatus known, so simple, so cheap, so accessible, and so *invaluable*, as a length of narrow, moderately flexible rubber-piping.

It costs almost nothing; can never get out of order; as there are no bags, valves or nozzles; will wear for years; may be walked on, sat on, or jumped on without damage.

It may be employed for a thousand purposes, where a syringe can and cannot be employed; is safe in the hands of any one.

An enumeration of the conditions in which it serves an ideal purpose would occupy too much space, though I might mention a few: Wound irrigation, in any species of surgery. Irrigation for every or any purpose, whether for cleansing the vagina after the parturient effort, menorrhagia or metrorrhagia, with cold or hot water, antiseptic or aseptic solutions. Irrigation and lavage of the stomach. At the terminus of the intestinal tube at the rectum, it works wonders in an innumerable class of pathological conditions; in common constipation, intestinal obstruction, renal or bilious colic; a colon widely distended with hot water serves the purpose of a great soothing poultice in relieving spasms and subduing congestion.

After laparotomies, the well-oiled, flexible tube may be carried up through the angles of the colon, when fecal impaction and gaseous distention are readily overcome by the pressure, solvent properties and heat, from a large, but slowly discharging stream into the bowel. In a case in which I performed a hysterectomy some time ago, my patient's bowels would not respond to salines. The belly ballooned up to such a degree that there was imminent risk of all the sutures tearing out; besides, she was in such great distress that collapse was approaching. The prompt use of a piece of tubing, carried far up, not only for conducting the warm liquids in, but also to

relieve the paretic bowel by carrying the fluid feces and flatus downward, saved her life; for, after about a half gallon was sent in, I reversed the current, when the quantity of gas which escaped with the liquid was enormous. In a few moments the abdominal walls, relieved of the terrible distensive force, fell inward and our patient's life was saved.

It may be employed most happily for irrigating the bladder, nose or ear; the tube varying in size. In local wounds or inflamed areas, in which a refrigerating irrigation, drop by drop, serves a useful purpose, this tube cannot be excelled by anything else.

If this simple device is so excellent, why do not the brethren more generally employ it? I may say from experience, that it is simply because they don't know how. No, the *practical application of syphonage* the majority know nothing about. Hence, I should suggest that those who teach practical surgery would devote two or three lectures in the course to the physics and wider range of application of this simple, yet priceless agent.

How shall it be applied?

In a general way; for the majority of purposes one piece of tubing is ample. Its diameter should be about three-eighths of an inch. It must not be too flexible, nor yet too hard. If too flexible it will kink in coiling, and in going through the anal sphincter will be closed by the contracting muscle. If too hard, it will be manipulated with difficulty, and in coming in contact with the soft parts, may do harm. In length, a tube three to four feet long will do. It can be always easily cleansed and disinfected, ever ready for use. The technique of syphonage is very simple. I never carry any "sinker" for the distal end of the tube, as it is a nuisance in one's pocket; but depend on finding some solid substance at the patient's house; the glass stopper of a bottle, or a stove-cover-lifter, answers very well. Having your liquid of such composition and temperature as you desire it, fill a half or gallon pitcher and let your free end of the tube with the sinker down to the bottom, gradually coiling the pipe on itself, until the uppermost orifice is reached, when this is submerged. Now, if you have your tube filled with liquid, you are ready; but be sure that you keep a tight grip on the orifice of the tube till the pitcher is raised beyond the level at which you intended to apply the liquid. Now, the force and size of the stream may be regulated by your finger and thumb, applied over the lumen of the tube, and by lowering or raising the vessel to any height.

So much in a nut shell for syphonage in surgery, its efficaciousness, simplicity and slight expense. It dispenses with the use of syringes altogether in the hands of the practitioner, and is, furthermore, when considered from any side, the agent of the greatest value, in a mechanical way, known in surgery. Indeed, a treatise might be profitably written on it. For instance, it might be demonstrated, the use it would serve in a pinch, in the event of hemorrhage, as a substitute for Esmarch's bandage, in tracheotomy in an emergency, etc., etc.

If I have succeeded in arresting the attention of those not familiar with this simple apparatus and its manifold uses and simplicity, I will feel amply rewarded for the effort.

ONE TESTIMONIAL.—Mr. Mercer: "Do you think advertising pays?"

Mr. Mercer.—"It didn't pay me; I lost money by it."

Mr. Mercer.—"What did you advertise?"

Mr. Mercer.—"I advertised for a wife and got her."—Puck.

VACCINATION.

By ERNEST B. SANGREE, A.M., M.D.,

Director of the Histological Laboratory in the Medico-Chirurgical College of Philadelphia.

IN an article entitled, "With what shall we vaccinate?" Dr. Samuel Wolfe makes a plea for humanized virus as against bovine. He claims that the vaccination is not only more certain to be successful, but also more likely to be of the classical character. An experience amounting to some thousands of vaccinations, inclines me to agree with him. The most successful and typical vaccinations with me as with him, have been those in which the vesicle was punctured and a small portion of the lymph transferred to the abraded spot on the arm of another child. Cases that had been tried once or oftener with ivory points, but in vain, invariably yielded to this method of vaccination.

Although I am not of his opinion that no result should be expected if the matter has been over five days out of the dealer's hands, for I have often succeeded with points more than a month old, yet there is always much uncertainty as to success when bovine virus is used, and frequent failures are the rule.

As he says, too, cases vaccinated with bovine virus are apt to follow an atypical course, and the vesicle and pustule to be of a more or less atypical character. I have known, for instance, two weeks to elapse after a vaccination before the initial papule appeared. Unfortunately the majority of people are deeply impregnated with the idea that disease is frequently transferred by means of humanized virus, believing, on the contrary, that the bovine virus is perfectly safe. This latter, however, is not likely to be always the case, for, despite the care exercised by those who have vaccine farms, it is altogether probable that tuberculous animals are sometimes employed in obtaining vaccine virus. One physician of this city, at least, assures me that he knows of a child who was inoculated with tubercle by means of an ivory point.

One hears the most astonishing tales from the people about this one and that, children who were perfectly well before being vaccinated, but who ever since have been total wrecks.

These tales may usually be discounted about ninety-nine per cent., but a bad result will occasionally befall even the most careful, though permanent injury is likely very rare indeed. Two unpleasant experiences taught me to avoid children who were weakly or in whom there was a probability of hereditary taint, for if there is any latent constitutional trouble in a child, the irritation of the vaccination is likely to bring it to the surface, and the vaccinator will then be credited by the whole neighborhood with having poisoned Mrs. So-and-so's child. One of the two cases alluded to was that of a nervous girl of some seven years or age, the other was a weakly-built boy of five, apparently of a tubercular diathesis. These children had very sore arms, the vaccination sore refusing to heal, but ulcerating deeper and involving the axillary glands. In the boy's instance these glands broke down and two abscesses had to be lanced. Indeed, for a time his life was feared for. In the girl's case, aside from the marked nervousness, there was nothing apparent to contraindicate vaccination, and the trouble was probably due simply to an extraordinary susceptibility to vaccine virus.

ACTION OF THE AMIDE-GROUP ON THE WASTING ANIMAL ECONOMY.

CONTINUED BY

PROFS. DIXON AND ZUILL,
Academy of Natural Sciences of Philadelphia.

THE physio-pathological experiments with kreatin on the healthy and wasting animal economy were followed up by others upon taurin with the results heretofore reported.

January 22, 1892.

To Prof. Samuel G. Dixon, M.D.

DEAR DOCTOR:—At your request I have used kreatin, taurin, the toxic agent you extracted from tuberculous lungs and tuberculin, as diagnostic agents, with the following results:

Cow condemned for tuberculosis treated with 1 grain of kreatin.

TEMPERATURE.

11.00 A. M.	101.6° F.	7.00 P. M.	102.4° F.
1.15 P. M.	102.0 "	8.00 "	102.4 "
2.30 "	102.1 "	10.30 "	101.6 "
6.00 "	102.4 "	11.30 "	101.6 "

Same animal treated with 1 grain of taurin.

TEMPERATURE.

9.00 A. M.	102.2° F.	5.30 P. M.	102.4° F.
11.00 "	102.1 "	7.30 "	102.6 "
1.30 P. M.	102.0 "	9.30 "	102.6 "
3.30 "	102.1 "	8.00 A. M.	101.0 "

Same animal treated with tuberculous toxic agent, prepared according to Dixon, ½ grain.

TEMPERATURE.

8.55 A. M.	102.4° F.	3.15 P. M.	102.3° F.
10.35 "	102.6 "	4.30 "	102.4 "
1.00 P. M.	102.4 "	7.30 "	102.6 "
		10.10 P. M.	102.0 F.

Same animal treated with tuberculin, 400 mgs.

TEMPERATURE.

12.50 P. M.	101.8° F.	5.30 P. M.	102.2° F.
2.00 "	101.8 "	6.50 "	102.2 "
3.15 "	102.0 "	8.15 "	102.4 "
4.15 "	102.2 "	9.00 "	102.0 "

The results from the reagents not being consistent with our former experiments on tuberculous animals, the cow was killed and posted so as to determine the exact condition. This demonstrated a non-tuberculous condition.

W. L. ZUILL.

The Polyclinic.

JEFFERSON HOSPITAL.

IF you find a patient who wants to empty her bladder once or twice, or every three or four hours, during the night, you may know that the urine is at fault, and, therefore, irritates a normal mucous membrane, or that the mucous membrane is inflamed, and will not submit to the contact of normal urine, or that pressure in some way interferes with the retention of the urine. The most frequent cause is cystic inflammation; in which case there is a change in the mucous membrane, as well as in the urine, which contains a large quantity of mucous and pus cells. The diagnosis is confirmed by the presence of tenderness on pressure above the pubes or in the vagina. Of course, this classification does not include nervous irritability of the bladder, in which you have a copious discharge of limpid water-like urine, looking as if it came from a spring; that does not indicate inflammation of the bladder; but when you have frequent discharges of urine which is changed in character, with increased sensibility above the pubes, or through the vagina, you have inflammation of the bladder.

This patient contracted cystitis probably by passage of a catheter. She continued to grow worse until the urine was passed every fifteen minutes or half

hour. This continued day and night; micturition was attended with considerable burning pain and vesical tenesmus, especially at the time of voiding the last drop of urine. She failed to get relief until creoline was used. The bladder was first emptied, and then irrigated with solution of creoline ʒj to a quart of tepid water. Three successive washings at intervals of four or five days cured the patient. The last application was made about three weeks ago; she does not now have to get up at night to micturate, and her general health has improved.

This patient presented herself about a year ago, and her condition was even worse than that of the woman who has just gone out. She was in great distress; continually wanted to pass water; could not remain in the clinic room long enough for an examination. The disease was attended with great suffering and failing health.

The different methods of treatment did no good, until injections of creoline were begun, as in the former case. These were kept up once or twice a week for five or six months, and she is now cured. The last injection was made in June, and she now has to get up only once during the night.

Solution of creoline ʒj to the quart sometimes causes considerable irritation; but the stronger the solution the quicker the cure.

In operation for lacerated perineum, the stitches should be left in for three weeks if they do not irritate. In complete rupture the most important thing is to get the ends of the anal sphincter united. Sexual intercourse should be forbidden for three months after operation.

I once saw most marvellous results from the use of a pessary. A young girl was sent from the country to the hospital; for months she had not been able to do any work; suffered from retention of urine, and it was believed she had spinal disease. Prof. Keen examined her; but could find no evidence of spinal disease, and turned her over to me. I found a retroverted uterus, replaced it, and introduced a pessary; from the day the pessary was introduced all backache and retention of urine vanished, and the girl went home to work.—*Parvin.*

DIFFERENCE BETWEEN IRITIS AND CONJUNCTIVITIS.

We have two typical cases. Here is iritis, which is getting well. Notice the circumcorneal zone; that is a mark that the case is one of intraocular inflammation, and not of the conjunctiva alone. This other man is a typical case of double conjunctivitis. It looks like a much worse case than the first; but all that is needed in its treatment is a weak astringent solution; alum gr. ij to ʒj of water, with something to keep the edges of the lids from sticking together.

One or two clinical points: Conjunctivitis is an inflammation of the external covering only, and is attended with very little pain; simply a feeling as of sand in the eyes. The other is a specific intraocular inflammation, affecting one, not both eyes, and differs from conjunctivitis as pleurisy differs from erysipelas on the chest. It is a dangerous form of inflammation, and, as it has a specific background, we must treat with mercury, and keep the pupil widely dilated with a mydriatic, in order to prevent the iris from becoming adherent to the anterior surface of the lens.

—Thomson.

Prof. Thomson operated by extraction on a congenital cataract in a young man, age thirty. Two weeks ago he had extracted the other lens successfully.

CHILDREN'S HOSPITAL.

EPIPHYSEAL fractures generally do very well, and the only question is, as to whether the growth of the bone will be interfered with by the separation of the epiphyses. There was a general opinion that the bone became atrophied after such injury; but the opinion now is that it has no effect on the growth of the bone.

Union, in epiphyseal fracture, is probably a little more prompt than in fracture of the bone.

—Wharton.

MEDICO-CHIRURGICAL HOSPITAL.

FOR eczema of the finger tips Prof. Shoemaker, after salicylic acid had been used, ordered the following ointment:

R.—Hydrarg. chloridi mitis..... gr. x.
Beta naphthol..... gr. x.
Camphoræ..... gr. x.
Ung. zinci oxidi benz..... q. s. ad ʒj.

M. Et ft. ung.

Sig. Apply to affected parts night and morning.

Internally, salol gr. v, was given three times daily.

For a young man, aged twenty-two, who presented himself for treatment, giving specific history, and showing well-marked papular syphilides all over the body, Prof. Shoemaker ordered hypodermic injections of bichloride of mercury (gr. $\frac{1}{16}$ three times daily, increased till gr. $\frac{1}{2}$ daily is given) deep into the gluteal muscles.

The medicine was given hypodermically on account of the debilitated condition of the patient. Per orem, he was ordered, three times daily, fluid extract of hydrastis \mathfrak{m} x, and tincture of nux vomica \mathfrak{m} x, in glycerine or water; the hydrastis to be increased until he takes \mathfrak{m} xx or xxx.

MEDICO-CHIRURGICAL COLLEGE.

ORDINARILY, after iridectomy, it is well to drop into the eye solution of atropine, in order to prevent adhesions of the iris. After iridectomy for glaucoma, however, never use a mydriatic, as it would tend to produce the very condition we are seeking to overcome, namely: closure of the canal of Schlemm, and increase of intraocular tension by driving back the blood and tissue of the iris on to the ciliary body.—Keyser.

DIAGNOSIS BETWEEN MEIBOMIAN CYST AND HORDEOLUM.

Meibomian cyst, when it begins, is not an inflammatory condition, but merely a stoppage of the meibomia duct. The gland, from retention of its secretion distends, and becomes larger and larger. Later, it may become pustular, from the breaking down of the contents of the cyst. Hordeolum is an abscess from the beginning. It is not in the meibomian glands, but in the tissues of the lid.

The treatment of the two is entirely different. Hordeolum being an abscess, the treatment is warm water applications, and opening with a knife when pointing; in meibomian tumor the cyst wall must be dissected out.—Keyser.

HOWARD HOSPITAL.

EXTRACTS FROM CLINIC OF DR. ATKINSON.

Here is a lad with otorrhœa, undoubtedly the result of scarlatina. The discharge has not a bad odor; when that is present decay of the bone is going on.

A good thing in cases of this kind is to cleanse the ear with warm water, using a syringe, dry the ear well and inject, once a day, a saturated solution of equal parts of water and glycerine. Internally to tone up the system,

R.—Syr. acidi hydriodici..... ʒss.
Aqua..... ʒj.
Sig. Half teaspoonful three times daily.

Bronchitis in a child fifteen months old. An excellent result is obtained in these cases from the use of ammonium chloride. We shall give this child about one grain four times daily.

Boy, seven years old, with cough; complains of soreness in front and at sides of chest; no sore throat. Never see a child who complains of irritability about the mouth or throat without examining the throat carefully for some serious trouble, as such may exist without much complaint on the part of child. This boy has had cough until his general health is broken down. I shall give him a teaspoonful of syrup of the hypophosphites three times daily.

This boy, eleven years old, is very restless, grinds his teeth while asleep, and will not keep the bed-clothes on him. Every fall he has such attacks; always in these cases look for some vice of locality, such as malaria, which may exist in places recently filled up. We find no such vice here. We shall give him what is known at the hospital as Tonic A, which is made up as follows:

R.—Acidi phosphorici dil..... 4 parts.
Tr. ferri chloridi..... 3 "
Syrupi..... q. s. ad 12 "
M.—Sig. Teaspoonful four times daily.

Infant, four months old, with eczema of the cheeks. These troubles are invariably associated with indigestion from improper food or other causes. This child vomits slimy matter. We shall give, every three hours, as much pepsin as will lie on a ten-cent piece. Let this be put on the tongue and washed down with breast milk; also, instead of cow's milk, which the child has been taking in conjunction with the breast milk, it will have Mellin's food, mixed as directed. The mother should give it as much breast milk as possible.

Externally, let it be bathed with lukewarm water. I want to see the effects of internal medication on the case.

Boy, eight years old, complains of sore throat. There is no ulceration, but congestion is apparent. I like, where there is the slightest tendency toward congestion about the throat, the following:

R.—Sodii chloratis..... ʒij.
Sodii chloridi..... ʒij.
Aqua.....
Syrupi..... āā ʒij.

M.—Sig. Teaspoonful every three hours. As this solution is more than saturated, it must be shaken before taking.

SMALL-POX is now absorbing the attention of the health authorities. It has taken root in the Italian colonies of this city, and strenuous efforts are being made to get rid of the much-dreaded disease. The whole of Dr. Edson's corps of vaccinators are hard at work vaccinating the residents in the Italian colonies, both down town and in Harlem. The buildings where these creatures live are hourly inspected by the medical corps.—*Doctor's Weekly*.

The Times and Register

A Weekly Journal of Medicine and Surgery.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.
A. E. ROUSSEL, M.D., French Exchanges.
W. F. HUTCHINSON, M.D., Italian and Spanish Exchanges.
HERMAN MARCUS, M.D., German Exchanges.

THE TIMES AND REGISTER,
FORMED BY UNITING THE
PHILADELPHIA MEDICAL TIMES,
THE MEDICAL REGISTER,
THE POLYCLINIC,
THE AMERICAN MEDICAL DIGEST,
PUBLISHED UNDER THE AUSPICES OF THE
AMERICAN MEDICAL PRESS ASSOCIATION.

Published by the MEDICAL PRESS Co., Limited.

Address all communications to 1725 Arch Street, Philadelphia.

New York and Philadelphia, February 6, 1892.

ALMSHOUSE MANAGEMENT.

THE State Board of Charities has taken up the question at issue between the City Board and the lady visitors to the almshouse. The tone of their report is more moderate than that of the ladies, but the State Board confirms their general statements as to their being room for improvement in the present management of the institution.

Nobody seriously doubts this, and few will question the benefit of such a committee to look into the administration of a public institution. Without such inspection from parties not connected with the management, perhaps hostile to it, the service becomes perfunctory, abuses, neglect and hardships follow inevitably. If this be so in all public institutions, it is doubly so in almshouses and in prisons. They are overcrowded; the inmates are a public burden; the best inmate is the one who gives least trouble, and when one dies it is a good riddance, and nobody regrets him.

"Rattle his bones over the stones,
He's only a pauper that nobody owns."

But the chief danger in the service is in the degeneracy of the officials from association with their charges. Pinel said that after a life spent among the insane he was chiefly thankful that he had not become himself insane. The turnkey in a jail can hardly avoid becoming hardened, when any evidence of kindly sentiment is apt to be taken advantage of by some cunning criminal. Dealing with paupers, wretches who have reached so low a point that no lower is possible, whose last hope of rising is extinguished; what wonder is it that the better impulses of the human heart grow weak, and the brute instincts come uppermost? A physician who had spent one year as resident physician at the almshouse, said that even after years had elapsed the rough manner of dealing with patients contracted there was still a decided disadvantage to him in private practice. If this be true of a cultivated physician,

how much more must it be so with the ordinary run of employés? Frequent changes in the personnel of the staff, and constant criticism by just such a committee as that of Anna Hallowell, are the best preventives of abuses in such places; and even if nine-tenths of the criticisms made were either mistaken or the matters irremediable, we owe the ladies a debt of gratitude for calling attention to the remainder. The public sentiment is certainly unanimous in desiring that these wards of the city shall have every comfort possible under the circumstances.

Annotations.

OUR supply of the "Diphtheria Number" is almost exhausted; and we will be unable to furnish any copies except to complete the files of our subscribers.

Of the "Influenza Number" we will send a copy to any address on receipt of ten cents.

We have in preparation several special numbers which will be announced as the receipt of material permits. We will be pleased to receive suggestions as to subjects, etc., from our readers; and especially to receive contributions to them. At present we ask for letters upon Scarlatina.

CONSIDERABLE interest has been shown in the trial of Dr. Harris for the alleged murder of his wife. The old story of doctors disagreeing has been again exemplified; with the inevitable ridicule of the laity, who cannot comprehend that such diversity of opinion can co-exist with a knowledge of medical matters. In no other profession are men expected to think alike; at least not since the days of the Inquisition. Dr. Harris has been attacked and defended with consummate ability. Whether he is acquitted or convicted, his case is another warning against the physician attempting to attend his own family. In some States this is forbidden by the law, and it should be in all.

IN *Sei-i-Kwai* is recorded a remarkable case. A woman, thirty-six years old, supposed herself to be pregnant; her menses ceased, and the abdomen enlarged to the usual size at full term. Labor did not occur; the abdomen began to diminish, and in a few months resumed its normal size, leaving a hard, small lump in the hypogastric region, and menstruation reappeared. She had no pain or other ailment subsequently. Forty years afterwards, she died. At the post-mortem a "full-sized fetus in a state of complete petrification was found in the abdominal cavity, below and to the right of the umbilicus, adhering to the bladder and to the broad ligament."

While this case shows that an extra-uterine pregnancy may go on to full term without causing the death of the patient, the probability of such a result is too remote to justify an expectant policy in such cases. It also serves to exemplify the advisability of physical examinations during the early months of pregnancy. The mortality of childbirth would be somewhat reduced, and the parturient period shorn of some danger, were the expectant mother to have a careful examination once every fortnight, and the urine subjected to chemical tests. Even though in the majority of cases nothing abnormal would be discovered, the

sense of security derived from a knowledge of the fact that everything is as it should be, goes far to keep up the morale of the patient; and as to the value of this, we need no demonstration.

EVERY newspaper publisher would rejoice if there were established some degree of certainty and uniformity in his relations with the post-office authorities. The law may be the same all over the country, but there is a decided variety in the interpretation. One town is favored by an official who considers it his duty to further legitimate business enterprise; while another only allows a publisher to obtain his just and legal rights when the official can find no possible excuse for withholding them. The consequence is that an official of the latter class may be a serious detriment to the city that is unfortunate enough to possess him; as business enterprises in it are unable to compete with those of other cities where a more liberal spirit prevails. In this connection *Printer's Ink* asks the following questions:

"Is it the practice of the Post-office Department to unduly obstruct the business of class newspapers?"

"Is a privilege allowed to political newspapers denied to others issued simply in business interests?"

"If a law is of doubtful interpretation, is it wise to ruin a good business enterprise while the department considers the case?"

"Would not the Post-office Department be justified in employing some one whose province it shall be to interpret the law and tell a publisher just what he may and what he may not do, instead of compelling him to interpret the law for himself, and afterward subject him to inconvenience and expense, while his case is reconsidered, and, perhaps, finally decided in accordance with his own views?"

"Is not this a suitable time and theme for some expressions of opinion on the part of editors and publishers who have had annoying experiences?"

Letter to the Editor.

INFLUENZA IN WAYNE COUNTY, PA.

WE have had but a small amount of influenza up here; being nearly 1,200 feet above sea level; and what we have had has been so light, with little or no complication, that I have found the following treatment efficient; and, almost without exception, have succeeded in breaking up the attack in from twenty-four to seventy-two hours. At the onset I give quinine sulphate grs. viij, continued in doses of 2 grains four times a day.

For the fever:

R.—Tr. aconiti..... gtt. j.
Tr. belladonnæ..... gtt. j.
Fl. ext. gelsemii..... gtt. j.

In water every hour.

For the pain:

R.—Phenacetine,
Salol.....āā ðij.

M. Divide in chart No. xii.

Sig. One every two or three hours.

Where there was weakness with depression I ordered whisky, ʒj in milk, with an egg beaten up, and given three or four times a day. The patients usually recovered, as I said, in from twenty-four to seventy-two hours.

I see by the "La Grippe" number of THE TIMES AND REGISTER that this has been the general line of treatment.

I think I must have missed the "Diphtheria" number, as I cannot find it. I should like to have seen it, for I had two cases of malignant diphtheria, and lost both. I used the bichloride treatment, 1-100 grs. every hour, with sprays of trypsin, peroxide of hydrogen; also, gave the chlor. potass. and iron, but it seemed to be of no avail. I wish we could strike something to kill the germs of this dread disease. I begin to think we are as helpless in the severe cases as we were fifteen years ago.

ROBT. G. BARCKLEY, M.D.

HONESDALE, PA.

The Medical Digest.

ARSENITE OF COPPER FOR LA GRIPPE.—In the influenza epidemic of the past winter and early spring, of course I had my share of cases to treat. It presented itself to me, as to other physicians, in all its protean forms, yet I was always careful to ascertain in each case I treated whether the malady was confined in its most marked form to the nervous system, alimentary canal, or to the respiratory organs. In all cases in which the most prominent symptoms were of a nervous character, attended with severe headache, and also those in which the alimentary canal was most implicated, I found no medicine to act so promptly and well, and to which the entire system seemed so responsive, as the arsenite of copper.

Furred tongue and constipated bowels were readily relieved by giving calomel tablets, of ¼ grain each, two or three times a day, giving two tablets at a time. In this way all cases of influenza, where the nervous system and alimentary canal were attacked, I treat with comfort to my patients and gratification to myself. I kept my patients strictly confined to bed, allowing them to have the diet the appetite would take. The most agreeable article of diet I found to be a fresh egg whipped up in a teacup and the cup then filled with tea. This can be sweetened or not, as the patient desires, and with a bit of toast is generally as much as will be taken. This can be repeated three times a day with good effect.

—*Western Med. Rep.*

THE INFLUENZA BACILLUS.—I. Preliminary Communication on the Exciting Causes of Influenza.—(From the Berlin Institute for Infectious Diseases.)—The following results are based on the accurate examination of 31 cases of influenza, in 6 of which a necropsy was made. A complete report will be published as soon as possible.

1. In all the cases of influenza a bacillus of definite species was found in the characteristic purulent bronchial secretion. In uncomplicated cases of influenza these tiny bacilli were found in absolutely pure cultures, and mostly in immense quantities. They were very frequently situated in the protoplasm of the pus corpuscles. If the influenza had attacked persons whose bronchial tubes were already otherwise diseased, as, for example, phthisical patients with cavities, other micro-organisms besides the influenza bacilli were found in the expectoration in variable quantity. The bacilli may penetrate from the bronchial tubes into the peribronchitic tissue, and even reach the surface of the pleura, where, in two cases examined post-mortem, they were found in pure cultures in the purulent exudation.

2. These bacilli were found exclusively in cases of influenza. Very numerous control examinations proved their absence in ordinary bronchial catarrh, pneumonia and phthisis.

3. The presence of bacilli kept equal pace with the course of the disease; with the cessation of the purulent bronchial secretion the bacilli began to disappear.

4. I had already seen and photographed similar bacilli in the same enormous quantities two years ago, during the first epidemic of influenza, in preparations of the sputum of patients suffering from the disease.

5. The influenza bacilli appear as very tiny rodlets, of about the thickness of the bacilli of mouse septicæmia, but only half the length of these. One often sees three or four bacilli strung together in the form of a chain. They stain with some difficulty with the basic aniline dyes. Better preparations are obtained with dilute Ziel's solution and with hot Loeffler's methylene blue. In this way it can be seen almost, as a rule, that the two ends of the bacilli take the stain more intensely, so that forms are produced which can only with great difficulty be distinguished from diplococci or streptococci. In fact, I am inclined to believe that some of the earlier observers also saw the bacilli described by me, but that, misled by their peculiar behavior with regard to staining agents, they described them as diplococci or streptococci. They cannot be stained by Gram's method. In hanging drops they are immobile.

6. These bacilli can be obtained in pure cultures. On $1\frac{1}{2}$ per cent. sugar agar the colonies appear as extremely small droplets, clear as water, often only very recognizable with a lens. Their continued culture on this nutrient medium is attended with difficulties, and up to the present I have not succeeded in carrying it beyond the second generation.

7. Numerous inoculation experiments were made on apes, rabbits, guinea-pigs, rats, pigeons and mice. Only in apes and rabbits could positive results be obtained. The other species of animals showed themselves refractory to influenza.

8. In view of these results, I consider myself justified in pronouncing the bacilli just described to be the exciting causes of influenza.

9. It is very probable that infection is produced by sputum charged with the germs of the disease; and the disinfection of the sputa of patients suffering from influenza is therefore urgently required as a prophylactic measure.

Addendum.—Dr. Kitasato has succeeded in cultivating the influenza bacilli to the fifth generation on glycerine agar.—Dr. R. Pfeiffer, Chief of the Scientific Section.

II.—On the Influenza Bacillus and the Mode of Cultivating it.—(From the Berlin Institute for Infectious Diseases.)—It is, perhaps, remarkable that in the case of a disease which in the last few years has attacked hundreds of thousand of persons, the specific exciting causes have, in spite of extremely numerous investigations, only lately been discovered. The cause, in my opinion, lies in the extreme difficulty of cultivating the tiny bacillus here before you; and, without pure cultures, a bacteriologist cannot, of course, come before the public with a new specific micro-organism.

The difficulty of obtaining cultures of specific bacteria present in the sputum depends chiefly on the great contamination of them with micro organisms, from the mouth, etc. The latter, in consequence of

their more luxuriant and abundant growth, can, on our artificial nutrient media, completely overgrow and hide the particular parasites sought for. This occurs all the more easily the longer the specific parasitic micro-organism in question takes to form colonies, as in fact happened in the case of the tubercle bacillus.

With the view of avoiding the obstacles standing in the way of a successful cultivation, Privy Councilor Koch has devised a method which has not yet been published, which enabled him many years ago, and myself again quite recently, to obtain pure cultures of tubercle bacilli directly from the sputum, and which has also been followed by me in the pure cultures of tubercle bacilli here before you. The method to which I have just referred will be published in full detail in an early number of the *Deutsche Medicinische Wochenschrift*.

With regard to the characteristics of the pure cultures of influenza bacilli here before you, I may emphasize the following points: On a sloping surface of set glycerine agar the individual colonies present themselves as extremely small points, like droplets of water, recognizable during the first twenty-four hours only with the aid of a lens, so that microscopically a test tube containing them can scarcely be distinguished from a sterile one. The individual colonies are, as has been said, so unusually small that they may easily be overlooked, and it may thus have happened that previous investigators have overlooked them.

If a culture obtained from such a colony is placed on a new nutrient agar medium, numerous small colonies arise on the moist agar surface, as may be seen in this tube. A particularly remarkable point about them is that the colonies always remain separate from each other, and do not, as all other species of bacteria known to me do, join together and form a continuous row. This feature is so characteristic that the influenza bacilli can be thereby with certainty distinguished from other bacteria.

The possibility of continued cultivation is now demonstrated, and the tubes here before you already form the tenth generation in pure cultures. On gelatine they do not grow, as they do not generally multiply at a lower temperature than 28°C ., which is the temperature at which gelatine solidifies. In *bouillon* they grow scantily. In the first twenty four hours single white particles are seen swimming in the *bouillon*, the intervening fluid being perfectly clear. Later, they sink to the bottom, and there form a white woolly mass filling the end of the test tube, whilst the supernatant *bouillon* remains entirely clear—a proof that we have to deal with an immobile bacillus. In conclusion, I may remark that I have accurately studied, with the microscope and by culture, for a long time back, the sputa of tuberculosis in respect to all the micro-organisms occurring therein besides the tubercle bacillus, and also the sputa of pneumonia, bronchitis, etc.; but the present bacillus, so extraordinarily characteristic in its cultures, and so easy to be recognized, has not come within my experience except influenza patients.—Dr. S. Kitasato.

III. On a Micro-organism in the Blood of Influenza Patients.—(From the Municipal Moabit Hospital, Section of Internal Medicine—Director: Dr. P. Guttman).—During the last few weeks, I have, under the direction of Dr. Guttman, examined the blood of twenty influenza patients in stained preparations, and in almost all cases I have found in the blood one and the same micro organism. The ex-

amination of the blood was made in the following way: A drop of blood obtained by pricking the finger was received on a perfectly clean cover-glass; this cover-glass was placed upon another one, and the two then drawn apart. The preparations, after they had been thoroughly dried, were placed in absolute alcohol, in which they were left for at least five minutes. They were then taken out and placed in the following staining solution (Czenzynke's solution): R. Concentrated watery solution of methylene blue, 40 grammes; $\frac{1}{2}$ per cent. eosin solution (dissolved in 70 per cent. alcohol), 20 grammes; distilled water, 40 grammes. The cover-glasses immersed in this staining solution were placed in an incubator at a temperature of 37°C ., and left there from three to six hours, when they were washed with water, dried and imbedded in Canada balsam. In the preparations of blood made in this manner, where the red blood corpuscles were red, and the white ones blue, I found the above mentioned micro-organism. It is found stained blue, sometimes in large quantities, but mostly sparingly, and only to be identified after a long search (about 4 to 20 in the preparation). Sometimes it appears as a small diplococcus, sometimes, especially when it is more deeply stained, as a short bacillus. In six cases I have found it also in numerous larger and smaller heaps of from 5 to 50 individual microbes with a very characteristic appearance. In these six cases the blood was drawn during a fall of temperature or shortly afterwards; in three of these no further rise of temperature occurred. From three to six days later I failed again to find the micro-organism in the blood in these three last cases. Sometimes I have been able to make the diagnosis of influenza when clinically it was not certain, by means of preparations of the blood alone. I have also found the bacteria in the blood, and, indeed, in considerable quantities in cases where there was no appreciable local lesion, and especially no cough or expectoration. Whilst making the preparations I have generally at the same time made streak inoculations of the blood on agar, glycerine agar, sugar agar, and *bouillon*. In six cases the *bouillon* was injected into mice, partly at once, partly on the following day after it had been in the incubator. These inoculations and experiments on animals always yielded a negative result. As on the basis of my researches. I am of opinion that this micro-organism occurs in the blood of all persons suffering from influenza (at least, in that of those who have fever), and as it is not found in the blood of other persons, and as it is a micro-organism hitherto unknown, I believe that it stands in direct relation to influenza.

Privy Councillor Koch had the goodness to examine some of my preparations—for which I tender him my best thanks—and pointed out that the micro-organism visible in them was identical with the bacterium found by Staff Surgeon Dr. Pfeiffer, which has been described in the preceding paper, which is published at the same time as mine. I began these researches about the middle of December; I have, however, still a large number of preparations to stain and to examine. I propose to publish the results of further research in a later communication. I have to thank Dr. Guttmann and Professor Dr. Sonnenburg, Director of the Surgical Section of the hospital, for kindly placing patients at my disposal.

—Dr. P. Canon, Assistant Physician, Berlin.

—*British Medical Journal*.

DEATH OF THE DUKE OF CLARENCE AND AVONDALE.—*The Lancet* gives the following details of the

fatal illness of the heir to the British crown: The Duke was attacked with influenza on January 7, and was unable to attend the birthday dinner given in his honor on the 8th. On Saturday evening, January 9, a patch of pneumonic consolidation was discovered at the base of the left lung; there had been no distinct rigor, but his Royal Highness appears to have had some shivering on Thursday, the 7th. On Sunday morning, January 10, dullness on percussion and tubular breathing were present up to the level of the dorsum of the scapula, and in the afternoon as high as the spine of the scapula on the left side, while at the right base also, these signs had appeared, and were found up to the angle of the scapula. No crepitation was heard at any time, and the consolidation did not extend far on the lateral aspect of the chest. The temperature was 103.4° ; the pulse about 90 and of good character; the respiration 30; and the intellect was perfectly clear. During the night of the 9th, the Prince was very restless; on that of the 10th there were snatches of sleep, and at one time the temperature fell below 102° . No material change took place in the condition of his Royal Highness on Monday, the 11th, but there was copious expectoration of yellow color, occasionally blood-stained, not very viscid or frothy. The left base cleared up considerably, but the right middle lobe became implicated. During the night from the 11th to the 12th, there was not much sleep, and his Royal Highness' condition in the morning was not very satisfactory. The physical signs gave evidence of further clearing up of the lungs in the course of the day; nourishment was taken well, and the pulse continued good, but in the evening the patient became more excited, and during the night very delirious. The delirium continued throughout the day, and this constituted the dominant feature of the illness. The consolidation of the lungs had almost entirely disappeared on Wednesday, but fine crepitation was present. Marked improvement took place in the early part of the night of the 13th; the delirium was less violent and less continuous, with intervals of sleep, but about 2 A.M., on the 14th, collapse suddenly supervened, with unconsciousness and absence of conjunctival reflex. A rally from this condition took place, but his Royal Highness gradually sank and died about 9.10 A.M.

The details of the illness are thus in agreement with the now familiar fact that when pneumonia supervenes upon influenza it is most insidious in its onset, and very serious in its course. To some extent, this is doubtless due to the effect which the influenza virus has in depressing the vital powers, and it sufficiently accounts for the exceptional fatality of pneumonia after influenza. It will be observed that the illness did not begin with any definite rigor, and that the signs of consolidation only appeared on the 9th inst. Thus it is somewhat difficult to determine the precise duration of the pulmonary affection; but it is probable that the pneumonic fever was approaching the crisis—the period at which death mostly occurs. The pneumonic consolidation, which was limited at first to the lower lobe of the left lung, involved, on the 10th, also the base of the right lung. Moreover, it began to clear up from the former organ whilst it was extending in the latter. The rapidity with which this resolution was taking place, is one of the remarkable features of the attack; whilst the character of the expectoration, the degree of fever, and the pulse rate did not seem to indicate any special gravity. But there appears to have been a serious change for the worse during the night of the 12th, which was announced in the somewhat alarm-

ing bulletin issued the following morning. His Royal Highness appears to have become very delirious, and these cerebral symptoms persisted throughout the 13th, constituting the chief feature of the case, for the signs of pulmonary inflammation were subsiding, and the fever was abating. Moreover, his pulse remained fairly good, and in the evening of the 13th a rally took place which must have considerably raised the hopes of his medical attendants as to his recovery, seeing that the period of crisis must then have been nearly reached. That rally, unhappily, proved to be delusive, and a rapid failure of the vital powers set in early in the morning of the 14th.

HEPATIC AFFECTIONS.—Of the diseases of the liver, diabetes has been the subject of much controversy. According to M. Lépine, of Lyons, this malady should be attributed to a rupture of the normal equilibrium between the *production of sugar* (glycogenia) and its *destruction* (glycolysis), caused by a special ferment. For Cl. Bernard there exists an abnormal functional activity of the hepatic organ. Prof. Bouchard, on the contrary, believes that there is insufficient destruction of sugar in diabetes. In any case, M. Lépine believes that the pancreas plays an important rôle in the affection. If the sugar is not destroyed it is due to some fault in the pancreas, for when that organ is removed diabetes follows. As to treatment, the waters of Carlsbad, Vichy, and Bourboule have given the best results with exercise and massage. Opium, quinine, salicylate of soda, antipyrine, and bromide of potassium are the best medical agents for diminishing the quantity of sugar.

—*Med. Press.*

RENAL AFFECTIONS.—M. Bouveret draws attention to the subacute pulmonary oedema witnessed in Bright's disease. It is well-known that lung trouble plays a considerable part in Bright's affection, but M. Bouveret has studied particularly one of the least known clinical forms of pulmonary oedema, which he styles *essential oedema*, and which is characterized by a *brusque début* manifesting itself by an intense dyspnoea, accompanied by albuminous expectoration, and which disappears in a few hours or terminates fatally. The opinion of the above-named gentleman on the subject is contrary to that of Welch, who believed that the cause of pulmonary oedema was to be found in the weakness of the left ventricle, the innervation of the pulmonary artery, characterized by a dilatation of the small vessels. M. Huchard considers that acute oedema of the lungs should be treated by subcutaneous injections of caffeine, application of cupping, and the administration of squill.

—*Med. Press.*

BROMÆTHYL NARCOSIS.—Dr. Gleich reported several cases where this drug had been used in Prof. Billroth's clinic. It is prepared by Merck, in Darmstadt. It is colorless, neutral reaction, fluid of an ethereal odor, with a specific gravity of 1.32. It is easily decomposed by light and exposure to air, which necessitates covering the drug. When applied with Esmarch's mask, it is best to cover it with tin-foil. The patient should breathe quietly. The mask should be slowly approached to the face; if quietness be maintained, narcosis rapidly ensues. The respiration and pulse become more frequent; the face flushed; the conjunctivæ injected; and after half a minute, extension of the extremities ensues. The narcosis may be protracted for eight minutes. In children 10 grammes, and adults as much as 30

grammes may be given; but larger doses produce cyanosis. The patient recovered rapidly from the effects of the drug; but the anæsthesia lingered long after consciousness was restored.

In habitual drinkers, a short period of excitement during administration was observed; in one case epileptic convulsions occurred, and in another an erythematous rash was produced. When given in labor cases it produced vomiting; but this is presumed to have arisen from rapid inhaling of the vapor or irregular respiration; in other cases it was a matter of indifference what the patient had taken prior to the narcosis. The conclusions arrived at from the experiments performed were that the narcosis was of short duration, and that only minor operations could be undertaken, and in those pertaining to the mouth a gag is necessary, as the muscular tonis is never perfectly destroyed, to protect the tongue from the convulsive movement of the jaws. There is no contrary indication for small doses, being equally safe in heart disease; it is harmless, speedy in operation, can be easily applied, and is more preferable than cocaine anæsthesia. In the discussion Prof. Dittel said that he had used brom-æthyl thirty times, and was of opinion that it was an excellent form of anæsthesia.

Dr. Metnitz reported his experience of the drug in the extraction of teeth, and compared it to nitrous-ether. In both an excitement period is absent; but in nitrous-ether a cyanotic point is reached which is absent in brom-æthyl; the latter is simple and easy in application; but should not be given in whiffs, as it is rapidly decomposed. To overcome this difficulty it has been proposed to have the anæsthetic prepared in 10 gramme flasks for immediate use.

Dr. von Hacker said he had used brom-æthyl in 50 cases, and was satisfied that it was the best among the narcotics that we possessed. In many cases the period had been extended beyond the above; but for ordinary purposes, such as extirpation of a parotid tumor extending over eight minutes, removal of an atheroma ten minutes, operating on an epithelioma of the cheek eleven minutes, it gave satisfaction, while the quantity administered may be increased with care to sixty cubic c.m. He had used penthal, which was also an anæsthetic of short duration, and apparently, as far as he could discover, the consequent phenomena were as favorable as brom-æthyl, with this difference, that it was somewhat longer in its duration and the odor not so agreeable. By a "brissement forcé" administration the duration was nine minutes while opening a fissure, fourteen minutes in the case of hemorrhoids, nineteen minutes while removing a terminal phalanx, and thirty one minutes in disarticulating two fingers after an injury. One of the principal difficulties in extending the duration of the narcosis was the imperfect inhalers. Gleich's form required a great amount of the fluid and little effect produced. Breur's form was the best at present, with which the patient could be kept under the narcosis thirty-one minutes with 50 ccms. of penthal.

—*Med. Press.*

SERIOUS SYMPTOMS ARISING FROM RETENTION OF NASAL DISCHARGE.—Miss H., aged twenty-three, was sent to me on September 7 of this year, as a probable case of malignant disease of the nose. The history she gave was that in November, 1890, she had a severe cold in the head with all the ordinary symptoms, except that there was an unusual amount of pain in the left eyeball and forehead, and that though the right nostril soon got well, the left con-

tinued to discharge a thin, yellowish fluid, which afterwards became thick and purulent, and had a very disagreeable odor. The left nostril gradually became more obstructed, and at last no air could be got through it. The pain in the eye, in the cheek, and across the forehead became also more severe, so that she could not sleep well at night, and could not read beyond a few minutes at a time. Pain was almost constantly present, and always got worse towards evening. For some months, too, the lachrymal duct had been obstructed, causing the tears to run over her cheek, and she had lost her sense of smell.

The appearance of the patient certainly gave one the impression that the case was a serious one. The left side of the face was swollen as a whole, and especially along the side of the nose; the left eye appeared to protrude, and had a dark discoloration under it, which had been noticed by her friends two months previously. The entrance of the left naris was filled by what looked like a large, pale growth. The patient was very anæmic and thin, having lost much flesh since the commencement of her illness.

The supposed nasal growth was easily pushed aside with a probe, as it was only a fold of hypertrophied oedematous mucous membrane, springing from the external wall just below the anterior end of the middle turbinate. It formed a very effective valve to prevent the escape of the stinking mass of putty-like or cheesy material which filled every part of the nasal cavity beyond. The smell was most offensive, and made the business of scooping out the collected secretion extremely unpleasant. After thoroughly clearing the cavity, which I did not finish in one sitting, and the free use of an antiseptic nasal wash, all the symptoms disappeared and the discharge ceased. I also destroyed the fold of mucous membrane which had caused the obstruction, by repeated applications of the galvanic cautery.

—Hunt, *Journal of Laryngology*.

COLLAPSE FROM VOMITING AND DIARRHŒA TREATED BY INTRAVENOUS INJECTION OF SALT SOLUTION.—This case is a most important addition to those which have already been published as to the efficacy of the injection of saline solutions where excessive loss of blood, or of the watery constituents of the blood, has taken place. It will assist in bringing before the profession in a most convincing manner the value which the treatment has in some apparently hopeless cases. Dr. B. W. Richardson has drawn the attention of the readers of *The Lancet* to the effect produced by the injection of a saline solution into the veins of a woman who was moribund from cholera collapse. "She became quite conscious, sat up in bed, and signed a short will." The improvement was, however, only temporary, and required to be repeated, but each repetition was followed by the renewal of diarrhœa and cramps, and the patient died some hours later. Mr. Lane's experience, which was also published in *The Lancet*, was derived from a case of secondary hemorrhage and collapse after an operation for cleft palate on a girl of thirteen. The results were almost miraculous, and the child rapidly recovered. He injected three pints and a half of common salt (one drachm to the pint) into the basilic vein. We have also recorded a case under the care of Mr. Anderson, of Nottingham, in which a fatal result from secondary hemorrhage was apparently prevented by the intravenous injection of a solution of common salt, forty grains to the pint. Eighteen ounces of this were injected, and although at the time very collapsed, within two

hours "he was able to sit up and ask for his tea." An injection of twelve ounces of similar fluid was required next day, after an operation, to secure a wound in the popliteal artery, from which the hemorrhage had come. This was again followed by satisfactory results, and the patient, a lad of sixteen, recovered. The injection of ten ounces of a solution of phosphate of soda, twenty grains to the ounce, was employed in a patient almost moribund from loss of blood due to wounds of the neck, with immediate benefit. Before the injection, the pulse was quite imperceptible at the wrist, the pupils dilated and fixed, and the conjunctivæ insensitve. A case in which much benefit of a temporary character was obtained is also recorded in our columns. It was that of a man aged fifty-four, under the care of Dr. Churton, who, from excessive vomiting due to cancer of the stomach, became prostrate and pulseless. Here again the improvement was very marked whenever the injections were used. Dr. Churton's remarks on his case are interesting. We have referred to the experiments of Messrs. Dastre and Lange, who say that the expression "toxic dose" has no meaning so far as the salt solution is concerned. There is no such thing as a toxic dose, but there is a toxic rapidity. Their experiments are important, and will be found in detail in the *Archives de Physiologie*. For the notes of this case we are indebted to Mr. Horace Collier, house physician.

W. H., aged nine months, was admitted to the Hospital for Sick Children, Great Ormond street, on October 26, 1891. For four months he had been under care as an out-patient for congenital syphilis and rickets, with several attacks of diarrhœa. He was, upon admission, cold, pale, shriveled-looking, completely quiet, and with sunken eyes and hollow-looking orbits. The history was that there had been severe diarrhœa and repeated vomiting for two days.

The child was at once rendered warm, and brandy and meat-juice were administered in small quantities. Eight hours later the patient was still more collapsed, and appeared to be near death. He had vomited frequently since admission. The house physician exposed the left external jugular vein, where it was superficial to the sterno-mastoid, and slowly injected with a double nozzle syringe, twelve ounces of distilled water, containing thirty-six grains of common salt and rather more than a drachm of brandy, the temperature of the solution being kept at 101°. The reaction appeared before the operation had been completed, the pulse becoming bounding, the face flushed, the skin hot, and the child very restless. The temperature was 104.8° three hours later; it remained at this level for two hours, and gradually and almost regularly fell, reaching 98.6° thirty six hours from the time of the injection. The very restlessness was combated with opium. The child vomited once only after the operation. The diarrhœa was treated with gray powder and the compound ipecacuanha powder, and the patient showed no further complication, and recovered.

—Sturges, in *The Lancet*.

SURGICAL TREATMENT OF NEURALGIA.—It is not my intention on the present occasion to deal with the medical treatment of neuralgia. In all probability the cases which find their way to the surgeon are those in which medical treatment, both local and internal, has failed to relieve, and such patients have usually borne with their sufferings for many years before they seek surgical interference. As a rule,

the majority of these have passed the middle period of life.

In reviewing generally the *operative treatment* of this disease the first and simplest method employed, that of *neurotomy*, was suggested by Albinus and Galen, and first carried out by Schlichting and Maréchal on a branch of the fifth nerve about one hundred and fifty years ago, but good results did not follow their efforts. It was performed more or less frequently up to 1840, and then for a decade or more seems to have fallen into disuse, if the silence of records is to be so interpreted. But in 1852, M. Roux, of Paris, recorded four cases of operation on the fifth nerve, since which time they have become numerous enough. The results of these earlier operations, whether neurotomy or neurectomy, were, however, not satisfactory.

The regenerative energy of the nerve was shown not to be the only causes of relapses. Attention was directed to the important fact that so many of the branches of the nerve passed through bony canals and were thus more directly exposed to pressure; whilst it was also noted that during the period of life when these bony canals were relatively widest, *i. e.*, among children, neuralgia is practically unknown. The suggestion naturally followed that the nerves should always be divided on the proximal side of the canals.

In discussing, then, the extent of the operation of neurectomy, it is eminently desirable to divide the nerve as high as possible, in order to get above any undiscovered lesion, whilst it is also advisable to remove as much of the nerve peripherally as is practicable in the affected locality, in order to give the nerve center as much rest as possible and prevent stimuli from reaching the brain along anastomosing trunks.

After alluding to the success attending Professor Thiersch's plan of resecting a large portion of the nerve trunk, he passed on to discuss the operation of *nerve-stretching*.

The value of this means of treatment was accidentally discovered by Nussbaum, of Munich, in 1860, from the disappearance of a tetanic spasm of the arm after the accidental stretching of the ulnar nerve during resection of the elbow. Since that date the operation has been largely employed, and its value has been pretty accurately ascertained in the treatment of the many conditions to which it has been applied.

Its use in cases of neuralgia has not been very satisfactory, and especially is this so in facial tic.

Practically, it is now admitted by almost all surgeons that nerve-stretching should be retained as a means of dealing with neuralgia of mixed nerves only, and undoubtedly it is beneficial in some such cases. But with the fifth nerve, which is almost entirely sensory, no permanent relief can be expected from the operation, and neurectomy is infinitely to be preferred.

Probably, however, in all cases of neurectomy, a certain amount of stretching of both central and peripheral ends accompanies the manipulations necessary to free the trunks, and it is a perfectly open question as to whether or not such traction has any beneficial effect or otherwise on the now course of the disease. That central changes can result is a fact tolerably well established, in those instances where the nerves pass directly through short, straight canals to the central organ. It is quite probable that beneficial effects may be produced in the Gasserian Ganglion by stretching the branches of the third

division, but evidently sufficient curative effect is not thereby established.

One other plan of treatment that has been suggested must be alluded to ere I bring this lecture to a close, *viz.*: *Ligature of the Carotid Artery*. It was originally recommended and practised by Trousseau, and up to the present time, so far as I can ascertain, but eighteen cases have been thus treated, with the result of procuring relief, varying in duration from one to three years in eleven cases, failure in three and one death.

It must be noted that some of the reported cures had also been treated by nerve-stretching and excision.

Of this plan I have no experience, and, indeed, have heard of no cases in which it has recently been tried; but one cannot help being struck by the above results, especially in connection with the theory of obliterative endarteritis alluded to earlier in this lecture propounded by Professor Dana. The figures quoted indicate a measure of success which is certainly somewhat greater than that usually attending operations directed to the nerves themselves.

The mortality of the operation is certainly a serious objection to it, for although it will be less than when the artery is tied for aneurisms, etc., whilst Hüter calculates it is about five per cent. in these cases, and such a fact would exclude it as a means of treatment, except as a last resort. Moreover, if not fatal, the possible effect upon the cerebral hemispheres must not be lost sight of in advising such a plan of treatment. That death has occurred from neurectomy, is an undoubted fact, but this is usually explained by septic contamination of the wound which can be avoided, and I have not yet lost a case in any of my nerve operations. Should, however, a recurrence of the pain occur after dealing with the Gasserian Ganglion this operation of carotid ligature can still be resorted to.—Rose, *Med. Press and Circular*.

BLEEDING FOR PNEUMONIA.—A man, twenty four years of age, was admitted into the Whitworth Hospital, Drumcondra, on the 6th of June, 1891, suffering from pneumonia.

The disease extended over the whole of the left lung and the posterior lobe of the right.

When seen the temperature was found to be 104.6°, the pulse 112, and the respiration 36. A quinine and acid mixture was prescribed, and some pounded ice; this latter he took greedily and enjoyed greatly.

On the morning of the 9th of June he was so ill that death seemed impending; his face was almost purple, and his heart was acting slowly and laboriously, so that its stoppage seemed near at hand. Something had to be promptly done to relieve venous congestion, and I breathed the median cephalic vein and let blood to sixteen ounces. Immediately on the vein being cut a jet of ink-black blood shot some six feet off, and when the stream was caught in a vessel and kept for days it retained its dark color, and neither buffed nor cupped. Before the bleeding was stopped the patient expressed the greatest relief, and his face lost its dusky hue; the pulse became soft and compressible, and the patient fell into a sound sleep, which lasted for six hours.

Such good results were very satisfactory, but they were not permanent; in two days all the good effects were gone, and the old symptoms of venous congestion returned, and the disease, now in its eighth day, was pursuing an unfavorable course. Ammonia was prescribed, and a plentiful allowance of Valentine's meat juice ordered. Towards evening of this day—

his fifth in hospital—respirations were 64 in the minute, and he was unable to hawk up the sputum; the temperature had fallen to 103°, but I did not think the fall of temperature betokened other than danger.

He commenced to wander in his mind and pick at the bed-clothes. The greater part of his trouble was, I concluded, due to interference with the oxygenation of his blood, and as three-fourths of his respiratory space was functionally useless, I saw no way of oxidizing his blood other than by increasing the amount in the air he breathed. By the aid of Mr. Turner, of Messrs. Fannin, of this city, I got a suitable apparatus, and on the evening of the 11th the patient commenced the inhalation of oxygen gas, which continued from 7 P. M. to 7.15 P. M. Gradually all the lividity of the face disappeared, and consciousness returned. On the inhalation being discontinued he slept for an hour.

Although the oxygen gas was driven directly into the mouth-piece, which was placed between the patient's molar teeth, no excitement but quiet followed its administration. At 10.30 P. M. the inhalation was repeated, and again during the night. For four days oxygen was administered every three hours for fifteen minutes at a time.

On the morning of the 12th, at 10 A. M., the temperature was 100.8°, respirations 40, and the pulse 106. He expelled the sputum without difficulty, and was able to answer questions, but not to make any long statement. Oxygen was continued until all the more urgent symptoms disappeared; thirty-three feet in all having been given. Resolution set in and proceeded but slowly, and it was not until the 24th of August that the patient was discharged.

—George Foy, *Dublin Jour. Med. Sci.*

THE NITRATE OF SILVER TREATMENT OF EPIDIDYMITIS.—In all cases the treatment I have pursued is as follows:

1. *Rest.*—This must be absolute, even urination and defæcation being performed with the help of the bedpan. All injections, or use of instruments, must be immediately discontinued. The urine must be kept bland, so that its periodical discharge shall not irritate and further inflame the urethra. Finally, the testicle itself must be supported.

2. *Purgation.*—This should be thorough and is very important. At the beginning of an attack it is well to start with a mercurial—say one grain of calomel hourly till ten have been taken, followed by a full dose of Rochelle salts, or, the Villacabras mineral water, if the bowels are not already moving freely.

3. *Local treatment.*—From the very beginning of the inflammation the scrotal skin over the entire affected testicle, as well as the skin covering the spermatic cord of that side, and the corresponding hypogastric region of the abdomen, should be thoroughly painted three times daily with a solution of nitrate of silver in water, forty grains to the ounce. It should be allowed to dry on. After two or three applications the skin turns brown and a slight burning and stinging follows the application. The brown color deepens into black, and soon the hardened epidermis begins to crack and scale off. As it peels a red sensitive epidermis is exposed. The painting is persisted in, and a considerable amount of burning and smarting is felt, which lasts perhaps fifteen minutes after the painting. But the patients are usually loud in their praise of the counter-irritant, which markedly relieves the distressing pain and ache which is so prominent a feature of the disease.

Under this simple treatment the pain soon disappears entirely, and then the swollen epididymis begins to lessen in size. Now is the time when it is especially difficult to keep the patient in bed; and now is exactly the time when it is most important to do so. Getting up before the swelling has almost gone, protracts recovery and tends to cause relapses. The longer you can keep the patient in bed, the better will be your result, and the quicker your cure.

The only other treatment that is required is an occasional dose of bromide to quiet restlessness, and sometimes, though rarely, some morphine to still the pain.

After the epididymitis has subsided, the discharge usually reappears with virulence. The only treatment I employ for at least two weeks, is the internal use of antacids and the balsams. I believe it to be dangerous to allow the patient to begin injecting immediately. Sounds, deep urethral injections, and endoscopic measures should never be employed until a full month after the epididymitis has run its course. —Gottheil, *Int. Jour. Surgery.*

OCULAR conditions rarely seen among Caucasians, but very common in the Japanese, are an abnormal development of the epicanthus, entropion of the lower lid, pseudo-trichiasis and false Hitokawame of the upper lid. This last is due to the shallowness of the orbital furrow; a large transverse groove below the eyebrow, dependent on the connective tissue fibers derived from the levator palpebræ superior, and attached to the skin. This, however, is the true Hitokawame, or single-skinned eye; but in the false Hitokawame seen in the Japanese, the orbital furrow is shallow or absent, and the looseness of the tissues causes a fold along the margin of the lid. When the lid is raised, this fold is produced, the cartilage alone being elevated. —*Sei-i-Kwai.*

DERMATOL.—Upon cut surfaces and in repair of surgical wounds, the dermatol has seemed to me to exert a very favorable influence in a dozen trials. In freshly opened abscesses, however, it is not recommended, but it is said to hasten the healing after fomentations have been used. Further, it is not worth using on sluggish granulations, as it seems to possess no power of stimulation, although favoring healthy granulation. Its effect upon ulcers is certainly most remarkable. Some of the cases seeming to be incurable by medical means and to demand skin grafting, have healed very kindly under a thick coat of the powder. It may be dusted directly in powder form, or by the powder blower, or made into ointment of five, ten or twenty per cent. strength. "Weeping" eczemas are very happily influenced by it. The gynaecologists also report good results. But if it do no more than be the most quickly and uniformly successful application for ulcers, particularly of the leg, and bedsores, and to some extent replace the malodorous iodoform as a wound dressing, it will have abundantly proven its right to be. —J. P. Sawyer, *Cleveland Med. Gaz.*

A SPECIFIC FOR TETANUS DISCOVERED.—Dr. R. Schwartz, of Padua, announces the successful treatment of tetanus by means of injections of the tetanus antitoxin of Tizzoni and Caltani. These experimenters succeeded in producing immunity against tetanus even in animals susceptible in a high degree, and have shown that the blood serum exerts an antitoxic action, and is capable of producing immunity against and cure of the disease. They succeeded in obtaining this tetanus antitoxin in a solid state by the

addition of alcohol to the serum, and by drying the precipitate *in vacuo*. As the disease in man is of longer duration and less certainly fatal than in many animals, there seemed to be good reason to hope that the tetanus antitoxin might be of great value. Gagliardi, of Molinella, treated a severe case by hypodermic injection of one gramme. All symptoms of tetanus disappeared and complete recovery ensued. Schwartz relates at length the case of a peasant boy, aged fifteen, treated by him.—*Med. Record*.

SPECIFIC MEDICATION.—For acute rheumatism, with small and frequent pulse, and increased temperature, aconite; full, strong and frequent pulse, veratrum; flushed face, bright eyes, contracted pupils, with frequent, bounding pulse, gelseminum; dullness and hebetude, tendency to sleep, dilated pupils, full, compressible pulse, belladonna; skin hot, inclined to moisture, face flushed, sharp pain, asclepias; deep seated, tensive muscular pain, hot skin, sweating, macrotys; sharp, cutting pain, hard, wiry pulse, pain in head and occiput, right side, bryonia; full pulse, soft, swollen, cedematous tissues, apocynum; enlarged lymphatics, sore mouth and throat, pale, opaque urine, phytoacca; pain in shoulders, back and neck, with irritating cough, sticta; sudden, tearing pain, increased by worry and mental exertion, colchicum; burning pain, sharp pulse, frontal headache, with large papillæ, rhus; chilliness, moist, hot skin, full and soft pulse, eupatorium; pallid mucous membrane, high temperature, salicylic acid; inflamed tonsils, pain in lumbar region and breast, restlessness, guaiac; tender and swollen joints, tendency to metastasis, cardiac faintness, dry skin, high temperature, erratic pulse, manaca; severe pain, aggravated by motion, jaborandi; broad, flabby tongue, heavily coated at base, eructations, feeling of weight and heaviness in epigastrium, emetic of lobelia; broad, flabby, white, pasty tongue, sulphate of soda; deep red, slick tongue, muriatic acid; dark red tongue, with dusty-brown coating, sordes, sulphurus acid; narrow pointed tongue, reddened tip and edges, subnt. bismuth; contracted tongue, dry and shriveled center, bluish, discoloration of mucous membrane, baptisia.—*Eclectic Med. Jour.*

GOUT OF THE PENIS.—At the Clinical Society of London, Sir Dyce Duckworth described this case: The patient was a man, aged forty-two, a glass-cutter, admitted into St. Bartholomew's Hospital with gouty arthritis, involving several joints, including those of the great toes. There was moderate pyrexia. No waste deposits. The patient had been discharged from a cavalry regiment twenty years previously on account of hernia. Since then he had led a sedentary life, and drank about two pints of beer daily. Sixteen years ago he suffered from lead colic, and was in St. Bartholomew's Hospital for treatment. He was occasionally subject to attacks of articular gout, and inherited the disease from his father. Five days before admission he was awakened by sudden pain in the right wrist and right great toe-joint. The following day he awoke with pain in, and firm erection of, the penis. This continued up to the time of admission. Three days later the left great toe-joint was attacked by gout. The various thoracic and abdominal organs were found healthy. The urine was acid, specific gravity 1022, and void of albumen. The penis was erect and tense, distressingly painful and turgid. No points of hardness were found in its course. The testes were natural. There was no pain or swelling in the perineum. The temperature varied

from 99° to 102°. Aperients and salines with colchicum were administered, and a light diet. The priapism persisted steadily, uninfluenced by internal treatment, by sedative suppositories, or lead and opium lotion. A cage had to be placed over the abdomen to prevent impact of the bed-clothes. Micturition was painful, and a soft catheter had to be passed. From time to time fresh articular attacks of gout occurred in various joints, with slight rises of temperature. Priapism persisted for twenty-one days without intermission, and gradually subsided with general amendment of all the symptoms. The noteworthy points in the case were, first, the gouty inheritance; secondly, enforced sedentary habits, with exposure to lead impregnation, and the habitual drinking of beer. While acute gouty inflammation was shown to be not infrequent in the bladder, prostate gland, and testes, gout of the body of the penis in this acute form was practically unknown, and the author had never heard of a similar case. The pathology was believed to be thrombosis of veins in the corporo cavernosa with some inflammatory condition of the trabecular structure, return of blood being mechanically prevented during the blocked condition of the parts. Smaller thromboses of this nature had been previously noted, but not leading to painful, persistent priapism, and entailing the presence of small knots readily perceptible in the body of the penis, which slowly or imperfectly disappeared. Priapism was sometimes met with in elderly men as the result of a very acid condition of the urine, and was readily removed by alkaline treatment. The author classified the condition described as amongst the rarer forms of gout, of which gouty parotitis was another example.—*Brit. Med. Jour.*

TREPHINING FOR SEVERE HEADACHE.—Dr. Pre-witt presented a photograph of a little child six months of age, whose head impinged against a mantel-piece, producing a depression of the right parietal protuberance, about two inches and a half long and an inch and a half across, by which grave cerebral symptoms were produced. The accident occurred on November 8; the child was seen on the 19th, following. The scalp being raised, enough bone was chiseled out to admit the elevator beneath; the bone being raised, the part depressed sprang back like an elastic substance, and the child recovered, manifesting no bad symptoms.—*Courier of Med.*

THE BICYCLE IN THE TREATMENT OF NERVOUS DISEASES.—Exercise for nervous affections should preferably be taken out of doors. It must be combined with pleasure and should be prescribed not only with the view of strengthening the muscles, but also for its effect upon the mind—which is often of the greater importance. The feeding of the mind on self and the continual mental introspection which is so common in neurasthenia, hysteria, and hypochondria should be combated by prescribing an exercise which necessitates the pleasurable concentrating of the mind on what is being done, something demanding a certain amount of skill for its successful accomplishment, and which therefore diverts the thoughts from morbid channels, stimulates the mental faculties in a normal direction, and engenders a feeling of brain-rest and mental refreshment.

Such results can be obtained by proper use of the bicycle. The facility with which its use is learned, the exercise of skill required, the exhilaration which comes from rapid motion, the continual change of view, and the exercise of almost every muscle of the

body, make it an apparatus which not only develops the body, but which is far more potent in stimulating a healthy cerebral activity and in arousing the mind from a lethargic condition than any medicinal remedy known to me. It is immeasurably more satisfactory and efficacious than any apparatus to be used at home.

I have prescribed the systematic use of the bicycle in sixteen different instances. Three of these were cases of paralysis due to anterior polio-myelitis; one was a case of paralysis resulting from multiple neuritis, and one was a case of hysterical paralysis with slight contracture. Six were cases of neurasthenia. The twelfth case was one of sexual perversion, and the thirteenth was one of abnormal sexual appetite.

—Hammond, *Jour. Nerv. Dis.*

HYGIENE IN THE BARBER-SHOP.—The fundamental principles of hygiene underlie all progress of refined tastes. It is not much to say that we live in one of the most important sanitary periods of the world. We know some of the beneficial agencies, based upon scientific knowledge, by which health is preserved.

Materson observes: "Men live longer and faster than formerly. A man, in these days of steam and electricity, may do more, see more, know more, and if wise, enjoy more than generations of his ancestors. But he must learn to understand and obey the laws of sanitary science."

As an instance of our carelessness, observe with what indifference we allow the barber and hair-dresser to wander over our faces and heads, with hands still reeking and hot from our predecessor in the chair—comb, brush and puff yet warm from the tonsorial manipulations. No wonder that baldness so soon supervenes on our civilized craniums. Admitted that many of the proprietors of tonsorial shops take pains to keep things clean and what they deem wholesome; that their patrons find no fault; but that it is indifference from habit; and they have not the slightest idea of the danger—never give it a thought, they are too anxious to spring forward when "next" is called! Let it here be stated that asepsis is not enough, but antiseptic means to cleanse and disinfect the armamentarium of the barbers is imperatively demanded to avoid danger from the propagation of disease, transmitted by comb, brush and razor, such as eczema of ear and face, herpes, acne mentagra, cyosis, etc.

Buckley found, in 1,000 cases of skin disease, 8 per cent. of barber's itch transmitted by foul razors or other barber's paraphernalia.

No, cleanliness in this matter is not enough. Disinfection with the proper germicides should never be neglected.

"*Mais, au fond, c'est une affaire de toilette privée.*" But it is also a duty of the sanitarian to hang out the danger signal.—*Texas Sanitarian.*

GUN SHOT WOUND OF THE LIVER.—In December, 1881, a youth of sixteen, pointed a cocked revolver (32 caliber, Smith & Wesson pattern) at an associate of his own age; this was done with no criminal intent, although both boys knew that the weapon was loaded. (This was in Kentucky.) Under such circumstances the gun that fails to go off is the exception; this was not an exception, for it did go off, sending the ball into the sixth intercostal space, at a point just below and in line with the right nipple. Its course was slightly downward, through the liver, missing bony tissue, lodging midway in the rectus muscle of the spine (right) just above the kidney.

I reached him two hours after the accident, and found well marked shock, not much hemorrhage at the entrance-wound; respiration was such that it led me to decide that the pleural cavity had not been entered. I at once cut down on the ball, having to go through considerable muscular tissue, and found the pointed end of the ball presenting toward the patient's back. I turned the boy on his left side and ordered the entire hepatic region to be covered with several layers of woolen cloths, frequently wrung out of hot water that was as hot as the patient could possibly bear it. A brisk purgative was also ordered, and morphine to control the excessive pain in doses sufficiently large.

For ten days the temperature ranged from 100° to 102°, while the pulse did not go above 100. On my first visit I probed the wound for a distance of two or three inches, to satisfy myself as to the course the ball had taken. During the first week the surface of the skin surrounding the entrance-wound was stained a marked yellow, with but slight suppuration at either wound. The urine voided for four hours contained blood, but never after that time. The stools were lacking in color for several days.

This patient made a good recovery, and at the end of six weeks was able to go on a journey to Texas, since which time of departure I have heard nothing from him.

(Since this report I have heard from the boy, now residing in Texas. His health has been good since the recovery from the wound.)

This case was treated on the expectant plan, with good results. In these cases of gun-shot or stab wounds of the liver, followed by severe hemorrhage, the application of perchloride of iron, followed by packing the wound with iodoform gauze, in order to have the benefit of pressure, is a procedure offering excellent results.—*Lancet Clinic.*

THE TREATMENT OF ECZEMA IN THE DIFFERENT HOSPITALS OF PARIS.—M. Hardy, of the St. Louis, considers the internal treatment to be of the greatest importance after the acute period has passed. Arsenic is the agent *par excellence*, and should be given in the form of arseniate of soda, one-tenth of a grain once daily. The patients should further follow a *régime ad hoc*.

Professor Fournier considers, on the contrary, that general treatment is of secondary importance; the acute stage should be allowed to pass by as quietly as possible, emollients only being used to relieve the inflammation. When the secondary stage arrives recourse should be had to zinc ointment and the wearing of caoutchouc. This latter has been too much neglected, and yet it is of great service. When the scrotum is attacked with chronic eczema an India-rubber suspensory is the best treatment. M. Lailler treats generalized acute eczema by rest in bed, milk diet when there is fever, and saline purgatives, but orders no other internal treatment. He has a great preference for the caoutchouc envelope, which he considers as giving the best results; it should be removed twice or three times a day and wiped, and the body of the patient sponged with warm water, which was previously boiled. When the India-rubber is ceased to be employed the skin should be rubbed over with vaseline, to prevent it from cracking. When the affection has passed the chronic state, he pays attention chiefly to the local treatment, and prescribes ointments of zinc, salol, coal-tar, etc.

M. Brocq looks on the internal treatment as of considerable importance, and prescribes it according to

the diathesis of the patient. In the strumous he orders cod-liver oil, or where this is not borne, a syrup containing iodine and tannin and arseniate of soda; in the rheumatic, alkaline waters (Vichy, Contrexéville, Royat); in the gouty, one to three a day for eight consecutive days every month, of the following pills: chlorohydrate of quinine, 2 grs.; ext. of colchic, powdered digitalis, of each one-fifth of a grain. The rest of the time he gives lithine with gentian. His local treatment consists in the following ointments, according to the position of the malady:

R.—Calomel ʒi.
Oxide of zinc ʒi.
Vaseline ʒvi.
Yellow oxide of mercury grs. x.
Tar oil ʒi.
Vaseline ʒi.
Limited to the joints.

R.—Naphthol,
Camphor,
Resorcine āā grs. x.
Sulphur ʒi.
Vaseline ʒi.
Eczema capitis.

—*Med. Press.*

THE PROPHYLAXIS OF INHERITED INEBRIETY.—A paper was read by Dr. James Stewart, of "Dunmurry," Clifton, who said they could not too often, as scientific men, protest against the use of the words drunkenness and inebriety as if they were convertible terms. M. Trélat had put the difference very clearly thus: "Drunkards are people who drink when they find any opportunities of drinking. Dipsomaniacs are diseased persons who get drunk whenever their attack seizes them." The drunkard, continued the lecturer, if he pursues his vicious course may so injure his brain structurally or functionally that he will eventually become an inebriate. The inebriate, on the other hand, is an individual who, in most cases, is born with an unsound brain. He may even be a man who has never as much as tasted any alcoholic drink in his life. True, the disease may be acquired, but the experience of fifteen years had taught him that the neurosis was in most cases an inherited one. The neurosis often led the sufferer to seek relief by the narcotism of alcohol, and so cause and effect were greatly mixed up. Admitting, as they all must, that it was a transmissible cachexia, the question arises, How best to prevent the germs of the inherited disease from being developed? Dr. Joseph Parrish had said, "Inebriety might descend as inebriety, but it was just as likely to change the form of its appearance into insanity or other allied manifestation." Bearing this in mind it was important that the child of an inebriate should be kept free from what might upset the nervous equilibrium, care being especially taken that the surroundings during early years were bright, and calculated to develop the higher and nobler characteristic of the individual. He deprecated, especially, corporal punishment at the hands of strangers. He advised the mother if her husband had been an inebriate at the time of her child-bearing, to not only bring up her children absolutely as total abstainers, but (by telling them after puberty, of their terrible inheritance) to warn them against ever touching alcoholic drink all their lives. The neglect to give this warning, the keeping back of this knowledge had in some cases treated at Dunmurry caused reproaches to be uttered against the mother for omitting to perform a duty to her child out of a desire to shield the memory of her husband. But if this duty

was imperative in a case of a son, how much more so in the case of a daughter if either parent had suffered from the disease? If she is to marry she ought to be warned as to the danger of marrying any one whose family history was tainted with a neurotic inheritance—a danger enormously increased if she should marry a first cousin. The lecturer concluded by the following summary of his views:

1. Drunkenness is a vice, inebriety a disease. The two terms must not be confounded.

2. The disease of inebriety once established may be transmitted to the patient's offspring either in the form of the alcoholic diathesis, epilepsy, chorea, insanity, or even tendency to crime.

3. The child of an inebriate born after the functional or structural lesion has been established is sure to inherit some nervous diathesis.

4. The only security against this diathesis developing as inebriety is by life-long total abstinence on the part of the child.

5. Even the adoption of this precaution will not absolutely make certain that there will be no transmission of the cachexia by the child to his or her own offspring.

6. To prevent the development of the alcoholic neurosis in other directions—such as epilepsy—sudden excitement of the emotions and sensibilities, such as might be produced by corporal punishment at the hands of strangers, should in all cases be guarded against.

7. In the prophylaxis of inebriety the principle to be acted on with regard to children's training is that if you accentuate the good you attenuate the evil.

8. The marriage of the child or even the grandchild of an inebriate to a first cousin should be absolutely interdicted.—*Med. Press.*

AN EXPERIMENT IN SEWAGE IRRIGATION.—Meadows irrigated by the town sewage to the extent of some eight acres have been worked at Crieff for at least sixty years; part on the Broich estate, where the ground was gravel and flat; part on the Crieff estate, on moorland with a steep slope. The grass was a coarse meadow grass, mixed with many water plants and weeds. The grass was cut and sold.

In 1870, Dr. Andrew Smart, of Edinburgh, writes, a new water supply was introduced to Crieff equal to 450,000 gallons per day. After some years, it was found that the small meadows were drowned by so much water of a depth equal to twenty feet a year. At Broich, the sanitary state of the dwelling-houses was seriously injured, and the irrigated area was reduced, and the sewage run to waste into the river Earn. On the Crieff estate most of the sewage was run to waste. It was then found necessary to investigate the question with a view to utilize such a large quantity of weak sewage. Crieff is fortunately situated on a hill with a southern exposure. The ground is naturally steep, and very favorable for drainage and irrigation. In fact, few towns have the advantage of a south aspect, with hills to keep off the north and the east winds, extensive views, and a large area of land of several hundreds of acres, all at a level suitable for irrigation. After mature consideration, it was decided to carry out an entirely new scheme.

Instead of trying how much sewage could be run on an acre, it was determined to try how thin the sewage could be spread, and over how large an area it could be used. Some sixty acres were available to treat about one-fourth of the sewage. This sewage includes the rain-water. Two sewers were laid, one

a high-level, six inches in diameter, and a low-level sewer twelve inches in diameter, as a gradient of only 1 in 200 was obtainable, and this low sewer was liable to floods. These sewers are so arranged as to have a valve for irrigating each field quite independently of the others; the sewers are at least three feet below the surface, and any field can be irrigated at pleasure. The fields were all tiled-drained some forty years ago. The soil is a poor, moor soil. The old meadow system of cutting the grass in summer was entirely given up; none of the grass is cut. The fields are laid down with fine pasture grasses; the sewage is distributed over the surface by catch-water gutters cut in the sod. During summer the grass is grazed by milk cows and other cattle; in winter sheep graze on it. It is found best to shift the sewage after a week; there being such a large area available, this is easily done. A discharge of one gallon per square yard per day for a week together produces a good result; it is then shut off that field and put on to another field; a field should not have sewage run on for more than a week continuously. It is found that weak, thin sewage is easily carried and distributed. The surface gutters require raking out occasionally. The financial result is satisfactory, and no difficulty has been experienced in the working. Turnips have been successfully grown by running sewage continuously for three months, but turnips have very little effect in purifying the sewage. The drainage from turnips and all other crops should be run over pasture, which alone has the power of extracting manure out of water.—*Lancet*.

In his operations on the brain, Macewen still uses the spray, partly because, to use his own words, "it is hard to give up an old faith," and partly, because he thinks it is, after all, a safeguard.

Horsley also uses the spray in these cases, and considers it an advantage, as being the most efficient form of irrigation.

In ordinary operations Macewen uses free douching with a one per cent. solution of carbolic acid. The skin is purified before operating, with a one-in-forty solution of carbolic acid. Turpentine and methylated spirit are also used in some cases to cleanse the skin. The part to be operated on is wrapped for some time previous to operation in carbolized gauze. He also uses iodoform very freely, diluting it with an equal part of powdered boracic acid.

Thus, in a case of hip-joint disease, with an abscess over the trochanter, he opened the abscess under a douche of one per cent. carbolic lotion, scraped it out with the sharp spoon, and applied a large quantity of the iodoform and boracic acid powder. He then packed the cavity with strips of sterilized gauze.

—*Maritime Med. News*.

BROMOFORM IN PERTUSSIS.—Bromoform, CHBr_3 , is a colorless, limpid liquid, analogous to chloroform, the three atoms of bromine in the former taking the place of the three atoms of chlorine in the latter; its specific gravity is 2.9, or more than twice that of chloroform; it is easily soluble in alcohol, very poorly so in water; it has a sweetish, agreeable taste, and does not affect the mucous membrane of the mouth. Owing to its extreme volatility and discoloration when exposed to light, heat and air, it should be well stoppered and kept in a cool, dark place, or may be dispensed in dark bottles.

Dr. Stepp, of Neuremberg, was the first to advocate its use in pertussis. The best mode of administration is one recommended by him, as follows: Drop

the bromoform into a teaspoonful of water; it sinks to the bottom of the liquid and collects there in the form of a pearl. On administering the dose, care should be taken that the bromoform pearl really goes into the mouth of the patient. It is swallowed with the water, and if a swallow of water be taken after the taste left is scarcely perceptible.

The dosage of bromoform is usually: For children three to four weeks old, 1 drop three or four times a day; for children up to one year old, 2 or 3 drops three or four times a day. In the main I have adhered to this dosage, but latterly found that smaller doses, repeated every two or three hours, night and day if necessary, appear to give better results. In some cases I gave larger doses than those recommended above, and consider it safe to do this when the case is in intelligent hands. I noticed no bad symptoms in my cases which could be traced to the bromoform. In one case, however, the dosage was reduced on account of drowsiness occurring soon after taking.—*Mellish, Chicago Med. Recorder*.

DIAGNOSIS OF SORE THROAT IN CHILDREN.—M. J. Simon, in his clinic at the Hôpital des Enfants Maladies, took for his weekly lesson to the students the different kinds of sore throat in children. By their frequency, he said, the gravity of some of their forms, and the difficulty of arriving in certain cases at a correct diagnosis, tonsillitis holds an important position in infantile affections. He had frequently the opportunity of bringing under their notice the principal types of the malady—acute, phlegmonous, herpetic, diphtheritic, tonsillitis, etc. They remembered, doubtless, the little child of four who was brought by its parents a week ago, saying that it was slightly ailing and tormented by a rather hoarse cough. Finding nothing important in the chest, M. Simon explored the throat with the greatest care. He was immediately struck with the redness and tumefaction of the tonsils as well as the presence of three gray spots revealing a diphtheritic character. These spots were closely adherent, refusing to be detached by the spatula. An important question was immediately raised—were these exudations of a diphtheritic nature, that is to say, due to the bacilli of Klebs-Löffler, or simply provided with microbial elements of a different nature (streptococci or pneumococci)? Recourse was immediately had to bacteriological examination in order to elucidate the question, and the result confirmed the primary suspicions. Two days subsequently the heavy breathing of the child indicated the necessity of performing tracheotomy, which was done with great facility, and the little patient is now in a fair way of recovery. This morning he was able to show them a new type of infectious sore throat. The pharynx was of a brilliant scarlet, and on the right pillar could be seen a little white spot, which made him for the moment suspect diphtheria; the microscope, however, revealed streptococci, and not the bacilli of Klebs-Löffler. The patient recovered at the end of nine days. These two examples are sufficient to demonstrate the difficulties and the importance of diagnosing the several forms of sore throat in children. If, however, a proper division is made, the great lines which should guide the medical attendant can be laid down and recognized. Affections of the throat in children are acute or chronic, but the former are most often seen, and can be subdivided into two classes, those accompanied with exudations, and those in which no appearance of any kind of *plaques* can be seen.

A. Tonsillitis with Exudation.—This class is the most important; the white matter may be pultaceous or diphtheritic. The pultaceous matter, composed of epithelial deposits, is easily removed by the tongue depressor, or by a brush, and dissolves quickly in water, while the diphtheritic patch, on the contrary, is detached with difficulty, and being of fibrous consistence, remains unaffected by water. To the former group belongs especially the sore throat witnessed at the outset of scarlet fever, herpetic tonsillitis, or ordinary pultaceous sore throat. The sore throat of scarlatina is characterized by its *début brusque*, with high temperature, vomiting, pains in the back, and general malaise. The whole throat is of brilliant red, and spotted slightly on the next day or the day after the eruption appears. The herpetic sore throat is recognized by the presence of minute transparent vesicles covering the mucous membrane, and sometimes on the lips similiar vesicles are discovered. The pultaceous sore throat can be recognized by the absence of the symptoms of herpes or scarlatina. Another form is that due to the presence of aphtes, but this is always preceded by stomatitis.

True Diphtheria.—In this, the most serious form of inflammation of the throat, as every one knows, it is of paramount importance to make a microscopical examination. The *début* of the malady is generally insidious; the patient feels a sort of lassitude, but does not ask to remain in bed, becomes feverish at night, but seems better in the morning. However, when the physician examines the throat, he detects gray spots on the uvula and the pillars of the fauces. With a brush he tries to remove them, but he finds they are adherent, and then, if he is an intelligent practitioner, the gravest fears arise in his mind, which may be confirmed when he submits the exudation to the microscope.

B. Sore Throat Without Exudation.—These forms are generally due to simple cold or irritation; they are to be met with in influenza, erysipelas, rheumatism, and certain eruptive fevers. Phlegmonous tonsillitis is another form, but is generally unilateral, and by the finger the pulsations of the swelling can be plainly felt. No error here can be easily made.

—*Med. Press and Circular.*

BENZOL IN INFLUENZA AND PNEUMONIA.—In the later cases of influenza that have come under my attention, I have been struck by the rapid amelioration of all the symptoms of the attack under treatment with benzol. The drug known to druggists as pure benzol is perhaps as reliable a pulmonary antiseptic as any we know of. In an hour or so after its administration it is clearly recognized in the patient's breath. The general results of its action in influenza are as follows:

In about two hours after the first dose the headache and pain in the back disappear, and in about six hours the fever has subsided—not to return, so far as I have yet experienced, so long as the use of the drug is kept up. The catarrhal symptoms have also by this time become less prominent, as also the suffusion of the eyes and flushing of the face. So far I have seen no tendency to the development of pneumonia under cases treated by the drug throughout and early seen to.

If we are to suppose influenza to be of microbic origin, and that the germs of the disease first make their assault on the pulmonary mucosa, then there seems to be an indication for the adoption of some such volatile antiseptic as benzol. This drug I have employed in whooping-cough—a disease displaying

more than one relationship to influenza, as witness the several complications common to both, etc., with unvarying success for years. Here it is now unquestioned that irritation of the respiratory tract from germ infection is the *fons et origo mali*.

The drug can be dispensed in capsules or in mixture (℥iij for children, ℥v for adults every two or three hours), for example:

R.—Benzol pur..... ℥80.
Spt. vini..... ℥ss.
Spt. chlorof. co..... ℥iij.
Mucil. tragac..... ad ℥viij.
℥ss every three hours in lemonade.

In its favor it may be stated that patients complain of no inconvenience from its use. It certainly does not reduce the patient in any way or interfere with digestion. I have generally kept up the action of the drug for three or four days after the disappearance of all symptoms.

—Robertson, *British Med. Jour.*

AN EXPLANATION OF THE EFFECT OF QUININE.—An explanation of the therapeutic effect of quinine in malaria has at last been found. So long ago as 1867, Dr. Karl Blinz, Professor of Pharmacology at Bonn, gave an explanation which was little noticed at the time, but has now been signally confirmed by the discovery of the germ of malaria. He showed that quinine hydrochlorate, with neutral or slightly basic reaction, is a strong poison for the protozoa of decomposing plants, and greatly hinders many fermenting and putrescent processes. A. Laveran, the discoverer of the plasmodium malarie, has demonstrated that this organism disappears from the blood of malaria patients after the administering of quinine, and that quinine, if permitted to act upon it directly, kill it.

SALIPYRIN FOR INFLUENZA.—I shall feel obliged if you will allow me to state, in answer to numerous inquiries from medical practitioners, that I consider salipyrin (salicylate of antipyrin) the most effective remedy for combating the feverish attack of influenza. Salipyrin, the properties of which have been studied chiefly by P. Guttman, Von Mosengeil, Hennig, and others, is a white crystalline powder which is nearly insoluble in water, but soluble in alcohol, and has the composition $C_{18}H_{15}N_2O_4$. It may be given in powder or in a mixture, which should be well shaken, with tincture and syrup of orange peel. The average dose is fifteen grains, which should be repeated at first every two hours. After four or five such doses have been given, there is, in most cases, an extraordinary change for the better; and if continued afterwards at less frequent intervals, the patient progresses rapidly towards recovery. I have given it chiefly in protracted and alarming cases where antipyrin and phenacetine had already been administered, and where, in spite of these remedies, the fever, prostration, and somnolence were becoming aggravated. The drug appears to have no injurious influence on the heart and other important organs; indeed, its beneficial effects on the pulse have been most marked. I need not add that every case has to be treated on its own individual aspects, but think that salipyrin will be found to prove our sheet-anchor in the treatment of the feverish attack of grip.

—Althaus, in *The Lancet*.

DEATH FROM PULLING ON A STOCKING.—A peculiar case of some interest has just been decided by the First Division of the Court of Sessions of Scot-

land. A man, who was somewhat corpulent, insured for £1,000 with the Scottish Accident Insurance Company, in 1883. Last year the insured met with a mishap while pulling on a stocking. In the act of stooping, it was said, he unwittingly pressed with violence on the lower abdomen, and the strain caused internal injuries from which he died in the course of the following day. The insurance company when asked to pay the claim naturally refused to do so, averring that death was due to intestinal obstruction, but the Lord Ordinary, before whom the case was tried, gave the pursuers decree for the sum sued for, with expenses, holding that the death was due to some involuntary wrench or strain that brought it within the policy. The company appealed, and the higher court have absolved the defenders, with expenses, on the ground that there was no proof that death was caused by "violent, accidental, external or visible means." The opinion of the Lord President was as follows: He said it was clear enough that *the obstruction and displacement of the colon causing distension and pressure on the heart was the cause of death*, but that the crucial question was whether the displacement of the colon was caused by external means which were violent, accidental or visible. He held that the movement involved in pulling on a stocking was neither accidental nor violent. That the man may have died from obstruction of the bowels is quite probable, maybe from a kink or from intussusception, but that he, when bending to pull on a stocking, and "feeling something give way inside him," should have displaced the colon and thereby stopped the heart is something new in pathology. How the claim for payment could be entertained for a moment passes our comprehension.

Medical News and Miscellany.

If you wish to realize the advantage of carrying your own medicines, see the article, "A Great Convenience in Practice," on advertising page vi.

It is well known that horses can hear deep sounds which we cannot. For days previous to the earthquake in the Riviera, the horses there showed every symptom of abject fear, which continued without any change of character till the fury of the convulsion broke forth. But not till a few seconds before the earth began to quake did human beings hear any sounds, while it is extremely probable that the horse heard the subterranean noises for two or three days previously.—*Boston Globe*.

THE AMBULANCE SURGEON.—The other day a sailor from one of the vessels in the harbor went off on shore leave, and of course got drunk. On his return to the ship he fell down a hatchway, and was picked up insensible. An ambulance was sent for, but the surgeon said it was only a case of alcoholism, and would not take it. The man was left in the police station, and as he did not improve the ambulance was sent for again, and then a third time; but the surgeon, with his wide experience, continued to diagnose the case as a simple "drunk," and would have nothing to do with it. Finally another ambulance was called, and the man was taken to another hospital, where he promptly died from a fracture of the skull.—*Med. Record*.

A PROMINENT Louisville physician was recently heard giving the following sage advice to a young student: "Never, never, send in a bill for odd dollars

or cents. For instance, suppose my bill for some particular case amounts to \$4.50. Instead of making it out for that amount, I make it an even \$5.00, and—get it. A man would just as soon pay that than the odd \$50, and in nine cases out of ten he will grumble at the former bill and pay the latter without a murmur."

THE PREVENTION OF ADULTERATION IN RUSSIA.—A municipal institute for the analysis of food and drink has been opened in the Hay Market of St. Petersburg. The director of the new institute is Professor Przibytek, of the Military Medical Academy. Rough qualitative analyses of milk, butter, bread, wine, beer, etc., will be made gratuitously for the public; but for more elaborate examinations of these substances, and of water, flesh suspected of trichinosis, preserved meats, etc., payment of a fee will be required.

UNRELIABLE PREPARATIONS.—According to the *Medical Annals*, the recent report of the State Board of Health for New York, contains some rather startling charges against the integrity of several of the leading manufacturing pharmacists of the country. Many pharmaceutical preparations were found to be of inferior quality, short in weight or too freely diluted. Hypodermic tablets of sulphate of morphine, sold for one-fourth grain, are found to contain "from less than one tenth of a grain to nearly one-third of a grain of morphine." Such statements as those, coming from a thoroughly reliable source, should attract wide-spread attention and lead to a general investigation. The medical profession demand pure drugs, correct weight and thoroughly honest treatment at the hands of the manufacturing chemists.

TUBERCULOSIS IN PRISONS.—Dr. Cornet, the German physician, reports, after extensive investigation, that more than 40 per cent. of all prisoners between the ages of twenty and forty die of consumption and other tubercular diseases. His theory is that the cells are often infected with the tubercle bacilli of former prisoners and are never efficiently fumigated before a new inmate is incarcerated. Dr. Cornet's discovery is, evidently, not without foundation; for, as the *Daily Graphic* points out, the theory "is proved by the repeated instances of the same malady occurring in those otherwise healthy, who live in close contact with consumptive relatives. Hawkers and traveling showmen, in spite of their open air life, ample exercise, and, on the whole, steady going ways, are especially liable to be decimated by phthisis if once a case breaks out in a van. The reason is that they sleep pretty closely packed, have no ideas of disinfection, and thus impregnate their living box with the germs. The disease is unquestionably hereditary. But half of the cases so classed are probably acquired by sleeping with, or breathing the same air as a sick person." Thus the question is raised, Is a gaol quite so healthy as institution as is generally supposed, even when dryness, warmth, exercise, food and freedom from exposure are all that can be desired?—*Hospital Gazette*.

SWIMMING.—Among the delights of swimming is this, that it gives us our nearest approach to flying. The accomplished swimmer reposes on the surface of the waves as truly as the bird reposes on the underlying atmosphere, and with even greater ease, since the pressure of the water that sustains him is superior to the pressure of the atmosphere, and of gravitation, that tend to draw him down. A bird even of

the widest wing must move his pinions to some extent in order to avoid falling; but the swimmer may, during an indefinite period, remain absolutely quiescent upon the surface of the water. As to his statics in that position, gravitation is practically suspended, and atmospheric pressure is obliterated. By the aid of one of the elements of nature, he has over-ridden one great law, to whose ceaseless effects upon us certain philosophers assert that we owe our ultimate dissolution. This constitutes one of the chief pleasures of natation; although there are thousands of excellent swimmers who may never have grasped the thought in this direction, and yet have enjoyed the resultant emotions, very much as Monsier Jourdain in his Molière's comedy found that he had been talking in prose all his life without knowing it.

—Hermann Oelrichs, in February *Lippincott's*.

PUNISHMENT OF MALPRAXIS IN TURKEY.—In view of the charges of unskillful treatment now made against the native physicians of the late Khedive, the following example of the Draconian severity with which malpraxis is, under certain circumstances, punished by the Turkish military authorities may be of interest. "Lieutenant-Colonel Dr. Condoupoulos Bey" (a designation which seems to show that the "unspeakable Turk" has at last solved the vexed question of titles), medical officer in charge of the Coubarrhané Hospital, was recently accused of causing the death of Hainé Hanoum, daughter of Marshal Ahmed Eyoub Pasha. He was tried by court-martial and found guilty. In accordance with Article 203 of the Turkish military penal code, he was condemned to have his medical diploma cancelled, with permanent loss of the right to practise medicine, to dismissal from the army, to forfeiture of all his medals and decorations, and to imprisonment for six months. This sentence, after having received the approval of the Council of Ministers, was made absolute by an imperial *iradé*. No information is given as to the nature either of the case or of the way in which it was treated, but it may be permissible to surmise that if the patient had not been the daughter of a Pasha and a Field-Marshal, the affair might possibly not have had such serious consequences for the unfortunate practitioner.

A NEW ELECTRICAL CARRIAGE.—Electrically propelled vehicles are among the many conveniences which novelists and fiction writers have ascribed to future ages, while practical inventors have given their attention to subjects that bring them more satisfactory results, such as street car work. A departure from this line of thought is afforded in the electrical carriage invented by Wm. Morrison, of Des Moines, Ia. The motor power is obtained from twenty-four accumulator cells placed under the seats, while the motor itself is on the rear axle. The winding of the motor is so arranged that a reversal of the current will cause the carriage to run backward as easily as forward, while the steering apparatus is arranged simply and effectively.

This carriage has been in practical operation in the streets of Des Moines for some time, and will soon be seen in Chicago.

From the satisfactory results obtained from this mode of locomotion, the day does not seem so very far distant when carriages, as well as other vehicles, will be moving around our streets propelled by electric motors that receive their current from concealed batteries, and, therefore, effect a further emancipation of the millions of animals now performing this service.

—*The Electrical World*.

TUBERCULOSIS IN BUDA-PESTH.—Professor Foder, of Buda-Pesth, asserts (according to the *Wiener Medizinische Wochenschrift*) that the city occupies a bad pre-eminence among the large centers of population in Europe in point of its mortality from tuberculosis. The yearly average of deaths from that disease in the Hungarian capital is from 590 to 600 per 100,000 inhabitants. Professor Foder attributes this state of things to the defective paving of the streets, owing to which the atmosphere is charged with an abnormal amount of dust. Taking this into conjunction with the recent closing of all the schools in the city, owing to the prevalence of scarlet fever and diphtheria in the city, it seems as though the forthcoming meeting of the Congress of Hygiene at Buda-Pesth, will be of the nature of a council of war held on the battlefield. With so much material for the most instructive object-lessons around them, the deliberations of the eminent sanitarians who take part in the proceedings should be of a highly practical character.

INTERLEAVED ADVERTISEMENTS.—Doctors are proverbially good-natured and long suffering, and bear with equanimity impositions that would move any other class of men to rebellion. This is exemplified in the fact that they continue to subscribe for and read medical journals which insult them with interleaved advertisements. Publishers find interleaving profitable, and will continue the habit till the subscribers to their publications express their disapprobation in no uncertain manner.

Cannot the reform idea be extended so as to include this improvement in journals? Readers want the advertisements, and the best men read them carefully, and find in them many and valuable hints as to new medicaments and instruments, but no man, when reading of an interesting obstetrical operation, wants to be interrupted by a flame-colored leaf telling him of the advantage to be derived from a kidney cure or rheumatic specific. The publishers must live or journals will not exist. It is desirable that they should live and make money, but they can attain both ends without marring the beauty of their productions by interleaved advertisements.

—*Western Med. Reporter*.

THE DANGERS OF TINNED FOOD.—Yet another case of poisoning by tinned fish, this time from Birmingham. Eight persons belonging to the family of a laborer named Woodford partook of the contents of a sixpenny tin can of salmon purchased from the grocer's on the 12th ultimo. With the exception of two, all suffered from sickness, and one child, between seven and eight years of age, who scraped the tin to secure the adhering particles of fish, became so ill that peritonitis supervened with fatal effect. The jury, on Monday last, returned a verdict of death from eating tinned salmon not properly preserved. The frequency of such cases as the above leads us to wonder that something has not been done to acquaint those who use such goods as food with the fact that under certain conditions the contents of the tin may become unfit for food, and even poisonous, and the suggestion presents itself to us, Why not have printed on the usually highly-colored label a statement of the symptoms of putrefaction, together with a word of caution to the user? A little carelessness on the part of the manufacturers in not properly sealing the tin before it leaves the works will often occasion serious results, and it is only just to expect those who place the goods on the market to do their utmost to prevent accidents and to warn the public of possible danger.—*Hospital Gazette*.

CA
dress
and t
soluti
burge
perim
effects
blood
them
ever,
weak
the p

GE
the w
the p
21, 18
mitted
149;
114 a
payin
the si

In
were
tients
clinic
by 66
by 83
issued
pita

TH
on Sa
the pr
respon
adults
United
of col
The

Apoplex
Bright's
Cancer
Casualti
Congest
Consum
Convuls
Group
Debility
Diphther
Disease

A
lately
rumin
thinki
erous,
lowed
the be
The c
awful
was fe
"sauc
assum
in her
rent o
them.
up in
or tel
saw a
and al
the m
monst
forme
Let n
pressi

CARBOLIC acid should be used with caution as a dressing for the extremities, particularly the fingers and the toes, since it may cause gangrene, even in solutions no stronger than two per cent. Frankenburg, of Erlangen, has studied the subject and experimented upon it, and concludes that the injurious effects of the acid are not alone constriction of the blood-vessels but that it destroys the blood corpuscles themselves, both red and white. It is probable, however, that gangrene does not follow the use of weak solutions unless there be some predisposition on the part of the patient.—*N. W. Lancet.*

GERMAN HOSPITAL WORK.—The following was the work of the German Hospital and Dispensary for the period between December 24, 1891, and January 21, 1892: Patients in hospital December 24, 129; admitted since, 194; discharged cured and improved, 149; died, 13; remaining, 161; of which number 114 are males and 47 are females. There were 97 paying patients, 34 free patients and 4 subscribers to the sick fund. There were 26 accident cases.

In the dispensary during the same period there were 1,661 cases treated, of which 427 were new patients and 106 were accident cases. The medical clinic was visited by 230 patients; the gynecological by 66; the surgical by 791; the eye by 331; the ear by 83, and the throat by 160. The prescriptions issued numbered 607. The nursing days in the hospital aggregated 4,302.

THE deaths in the city for the week ending at noon on Saturday were 525, being a decrease of 19 from the previous week, and an increase of 91 over the corresponding period of last year. Of these, 301 were adults and 224 were minors; 397 were born in the United States, 115 were foreign, and 20 were people of color.

The principal causes of death were the following:

Apoplexy.....	19	Diarrhoea.....	4
Bright's disease.....	12	Fever, scarlet.....	10
Cancer.....	11	" typhoid.....	13
Casualties.....	4	Inflammation brain.....	10
Congestion of the brain.....	7	" " lungs.....	79
" " lungs.....	8	Influenza.....	19
Consumption of the lungs.....	50	Inanition.....	10
Convulsions.....	18	Marasmus.....	11
Croup.....	12	Old age.....	23
Debility.....	15	Paralysis.....	5
Diphtheria.....	31	Suicide.....	1
Disease of the heart.....	32		

A REMARKABLE case of maternal impression has lately turned up. It seems that a cow was quietly ruminating on the good dinner she had had, and thinking whether a supper would be equally as generous, when a deer ran suddenly into her lot, followed by a bear at his heels. There before her eyes, the bear seized the deer and a short struggle ensued. The cow was in an "interesting condition." The awful sight riveted her to her tracks. Her fright was fearful to behold. Her eyes looked as large as "saucers;" her nostrils were distended; her tail assumed the horizontal position; and every muscle in her body twitched and jumped as though the current of an electric battery were coursing through them. The legs of the bear and deer were so mixed up in the struggle that the cow could not count them, or tell a hoof from a claw. She imagined that she saw a horn protruding from the forehead of the bear; and altogether the scene was very much mixed up in the mind of the cow. The offspring was a frightfully monstrosity, an exact reproduction of the image formed on her mind by the mixed and confused scene. Let no one hereafter doubt the fact of maternal impressions.—*Med. Herald.*

At the Stated Meeting of the Medical Society of the County of New York on Monday, January 25, 1892, the subject for discussion was "The Epidemic of Influenza."

The discussion was opened by Dr. Janeway, and after addresses by Drs. Jackson, Draper and Robinson, Dr. Francis Delafeld addressed the Society on "The Treatment of Influenza." He stated as follows: The treatment consisted of putting the patient to bed, and seeing that he was well nursed and had proper diet while the disease was running its course. It was possible, however, for the physician to interfere with advantage in the case of certain complications. Of all the remedies suggested for the treatment of influenza and its complications, such as nervous headache or neuralgia pains, etc., he had found nothing so reliable as phenacetine in doses of 5 grains every two hours. The catarrhal throat trouble, which is often present, he had treated successfully with aconite or salicylate of soda, with a solution of cocaine for local applications.—*Medical Record.*

THE COMMUNION AND PROHIBITION.—The pastor of a church in a Connecticut town announces that hereafter he will use no wine in the Communion service, but will present the worshippers with a cup containing colored water only. He is an ardent Prohibitionist, and fears that some devout communicant may be lead from the path of rectitude through a passion for drink, reawakened while partaking of the Sacrament. While it is not exactly within the province of a medical journal to discuss purely theological questions, yet we cannot but wonder at the apparent lack of faith in a Christian minister, who can believe that anybody could be plunged into sin by doing what his religion commands him to do; for it is evidently the duty of a professing Christian to obey the precepts of his church.

But there is a medical side to the rite of Communion concerning which a word may be said. And that is the passing of the cup to a whole line of communicants for them to drink from, one after the other. There are certain diseases which are highly infectious, and which might readily be conveyed to the well by means of a cup moistened with the lips of others. We do not refer to syphilis only, although the danger of that must be apparent to all, for it is not every earnest Christian who has always been a Christian, or who has not at some time strayed from the narrow path; but there are other diseases the contagion of which may be spread in the same manner. In the Catholic Church this danger does not exist, and while desiring in no way to enter theological fields, we believe that the Protestant churches might do well to consider, in these days of hygienic enlightenment, whether they acted wisely in departing from the ancient Catholic custom of giving the Communion in one kind only. If colored water may be substituted for wine, on teetotal grounds, why cannot the use of liquid of any kind be abandoned for hygienic reasons? The Connecticut pastor has by his innovation escaped but one of the dangers, and that one the lesser of the two.—*Med. Record.*

CARE OF THE EYESIGHT.—The hall of the Franklin Institute was filled with an attentive audience on Friday evening to listen to Dr. L. Webster Fox's lecture upon "Eyesight; Its Care During Adult and Old Age." A new cause of eye trouble has been found, according to Dr. Fox's experience, in type-writing machines. A patient recently called upon him who complained of sore eyes and a sensation as

of sand under the eyelid. He examined the eyes carefully, and found no organic weakness, and, on questioning the patient further, found that he had been using a type-writer with round keys, and that the most trouble was experienced while at work. He advised the use of a machine with a black key-board and rectangular keys, and after a few months' trial of such a machine the patient had no further trouble.

Proceeding to the consideration of the daily occupations which are hurtful to the eye, Dr. Fox particularly condemned reading in street cars and on railway trains. The paper is usually held closer to the eye than on other occasions, because of the motion of the cars, and when this strain is followed up by a day's hard work the effect is soon seen in congested eyeballs and eyelids.

Short intervals of rest will save eyes engaged in exacting work, Dr. Fox said, and he suggested that persons working over books have a green disk placed in range of their vision, so that their eyes can rest upon it when they raise their heads after running up long columns of figures. For the same purpose he advised that the walls of school rooms should be hung with maps and pictures to relieve the eyes of children. This plan has been followed in the Francis M. Drexel public school, at Sixteenth and Moore streets, with beneficial results, Dr. Fox said.

For persons doing much writing the lecturer advised the use of paper tinted a green, blue or yellow. He also explained the cause of headaches to many persons after a night at the theater by stating that a drop curtain with poor perspective is very trying to the eye, and has been known to affect persons.

The use of tobacco and quinine, said Dr. Fox, sometimes has an effect—producing color blindness. He thought railway engineers should be tested twice a year for this.

In conclusion, Dr. Fox advised persons desiring to retain good eyesight to avoid the use of stimulants; avoid sudden changes of extremes in light; do not read lying down; rest the eye by looking at objects at a distance; be particular in matter of hygiene; bathe the eyes twice a day in cold water until about forty years old; do not use your own judgment in the selection or use of glasses; bathe the eyes in warm water after fifty years old, and do not be afraid of an operation for cataract.—*Ledger*.

THE BRAINS OF GORILLAS.—At the last meeting of the Academy of Natural Sciences, Dr. Henry C. Chapman submitted an exhaustive paper, entitled "Observations on the Brain of the Gorilla." It was referred to the Publication Committee. Dr. Chapman made a few remarks on this subject, explaining the points he made by reference to several gorilla brains, skulls of the same animals and of human beings, and diagrams.

Dr. Chapman held that there was little difference in the cranial capacity of gorilla children and adults, and that the brain reaches its fullest capacity in childhood. During the life of the gorilla the skull develops, but the brain does not. Dr. Chapman pointed out the resemblance between some low types of the human skull and the skull of the gorilla, and showed that, contrary to the opinions held by some, the brain of the gorilla is very different from that of man. The chimpanzee and orang, he demonstrated, possessed brains unlike those of gorillas, and more like man.

Dwelling on the importance of a knowledge of the convolutions of the brain, Dr. Chapman pointed out what the brain of the gorilla lacked when compared

with the human brain. Many like convolutions were found in the brain of chimpanzees and human beings. As the so-called bumps of the skull do not follow the convolutions, and as the brain has several coverings, the outer of which is smooth, the science of phrenology, as known and practised, was declared to be useless and impracticable.

Dr. Chapman denied that man ever ascended from the anthropoid apes, but to find the origin, a descent must be made to the common stock.

Rev. Dr. Nassau, an African missionary, who had secured specimens of gorillas and their brains for the Academy, made a few remarks about the life of gorillas. He said that the distribution was very limited, and that they were only known in a region of Africa six hundred miles square.

This region is three hundred miles north and the same distance south of the equator, and three hundred miles eastward toward the interior. Where the gorilla is found is the only part of Africa where there are no lions.

Gorillas are gregarious. They are often seen in pairs, and several are sometimes together. The male is very brutal and selfish, and, in order to save their offspring from cruelty or death, the females, after they become mothers, desert the males.

The gorilla is not carnivorous. Its food is wild berries, nuts and fruits. These do not satisfy its hunger, so it makes depredations on the plantations.

Dr. Nassau described the great strength of gorillas, their breadth of chest, stretch of arm and development of muscle. Their preferable mode of attack is in a half sitting posture, extending the foot, with which they can grasp a man's leg and then crush him in their arms and tear him with their teeth.

The women most frequently see the gorilla. They are the laborers and watchers of the plantations. Often the women are unsuccessful in their efforts to frighten the gorillas away when they visit the plantations, and flee, sometimes being pursued by the animals. This probably gives rise to the stories of the abduction of women by male gorillas, stories which never have been verified.

They are more difficult to hunt than the elephant, antelope or chimpanzee, as they seek the densest part of the forest and tunnel beneath the undergrowth. They have all the alertness of other wild animals, and something fearfully like a devilish human being. In no other animal is there such a look of ferocity in the eye.

Dr. Nassau told in conclusion the story of the capture of the gorillas from which the brains exhibited had been secured.

THE KELSEY ORIENTAL BATH CO., LIMITED.

H. W. KELSEY, Manager,

Turkish and Russian Baths.

1104 Walnut Street, Philadelphia.

OPEN FOR GENTLEMEN ALL HOURS.

FOR LADIES, 9 A. M. TO 6 P. M., WEEK DAYS ONLY.

Single Baths, \$1.00; 7 Tickets, \$5.00; 15 Tickets, \$10.00.



OR
Carnrick's
Kumyss Tablets

A PRODUCT OF PURE, SWEET MILK, PALATABLE,
NUTRITIOUS, EASILY DIGESTED,
AND WHEN DISSOLVED IN WATER FORMS A
DELICIOUS EFFERVESCENT KUMYSS.

(Put up in air-tight bottles, in two sizes; the larger holding sufficient Tablets for seven twelve-ounce bottles, and the smaller sufficient for three twelve-ounce bottles of Kumyss.)

THIS PREPARATION is presented to the Medical Profession in the convenient form of Tablets, and will be found superior in every respect to ordinary Kumyss, Wine of Milk, Fermented Milk, or any similar preparation.

Kumysgen when prepared for use contains every constituent of a perfect Kumyss.

Kumysgen is made from fresh, sweet milk, and contains fully thirty per cent. of soluble casein, which is double the amount found in ordinary Kumyss preparations.

Kumysgen being in Tablet form, will keep indefinitely, is easily and readily prepared, less expensive than the ordinary variable and perishable Kumyss, and its *fermentative action* may be regulated at will, thus rendering it available at all times and under all circumstances.

Clinical tests gathered from every quarter of the globe attest its special value in all cases of *Gastric and Intestinal Indigestion or Dyspepsia, Pulmonary Consumption, Constipation, Gastric and Intestinal Catarrh, Fevers, Anæmia, Chlorosis, Rickets, Scrofula, Vomiting in Pregnancy, Bright's Disease, Intestinal Ailments of Infants, Cholera Infantum*; for young children and for convalescents from all diseases.

The casein being finely subdivided, it is especially valuable for all who require an easily digested or a partially digested Food.

Kumysgen is a delicious effervescent Food-Beverage, relished alike by the sick or well.

Kumysgen is tonic, stimulant, diuretic, highly nutritious, easily digested, perfectly palatable, and always *permanent* and *uniform* in strength.

SAMPLE SENT ON REQUEST.

MANUFACTURED BY

REED & CARNRICK, New York.

WM. PROCTER, JR., CO.,

PHILADELPHIA.

Effervescent Aperient Phosphates

NEEDS ONLY A TRIAL.

Aperient - Laxative - and - Hepatic - Stimulant.

VINUM DIGESTIVUM
(PROCTER).**A SATURATED ACIDIFIED SOLUTION OF
PURE PEPSIN.**

More than ten years since this preparation was introduced to the profession, and we are pleased to be able to state that it is still the favorite with the large number of physicians who have tested and found its unfailing digestive power. — Apepsia and Indigestion in its various phases, and especially as they occur in infancy, indicate its administration.

MANUFACTURED SOLELY BY

WM. PROCTER, JR., CO.,

All Druggists.

PHILADELPHIA.

**DR. BRUSH'S
KUMYSS**

"KUMYSS is, among the Nomads, the drink of all children, from the suckling upwards; the refreshment of the old and sick, the nourishment and greatest luxury of every one."—DR. N. F. DAHL's report to the Russian Government, 1840.

I WOULD also allude to cases of diarrhoea and vomiting, and of indigestion dependent on nervous disturbances during the later months of pregnancy. I had two cases during the past summer, both were rapidly declining in strength; they failed to be benefited by remedies suggested by other physicians, as well as myself, until they were placed on KUMYSS, when the improvement was rapid and permanent. Very truly yours,
ARCH M. CAMPBELL, M.D.

Farms and Laboratory,

MT. VERNON, N. Y.



"SANITAS" IS PREPARED BY OXIDISING TERPENE IN THE PRESENCE OF WATER WITH ATMOSPHERIC AIR.

"SANITAS" DISINFECTING FLUID.

An aqueous extract of Air Oxidised Terpene. Its active principles include Soluble Camphor ($C_{10}H_{16}O_2$) Peroxide of Hydrogen and Thymol.

Invaluable to the Physician for Internal or External Application.

"SANITAS" DISINFECTING OIL.

Air Oxidised Terpene. Its active principle is Camphoric Peroxide ($C_{10}H_{16}O_3$) a substance which produces Peroxide of Hydrogen when placed in contact with water or moist surfaces (wounds, mucous membranes and other tissues).

For Fumigations and Inhalations in the Treatment of Throat and Lung Affections the Oil only requires to be evaporated from boiling water.

"Sanitas" is Fragrant, Non-poisonous and does not Stain or Corrode. It is put up in the form of

FLUIDS, OIL, POWDERS AND SOAPS.

For Reports by Medical and Chemical Experts, Samples, Prices, etc., apply to the Factory,

636, 638, 640 & 642 West 55th Street
NEW YORK.

**ALL DOCTORS KNOW**

The Place to Purchase the Most Complete and Reliable Line of

Electro-Medical Instruments,

At Reasonable Prices, is at

WAITE & BARTLETT MANUFACTURING COMPANY,

143 East 23d St., New York City.

Our Lilliampre-meters all scientifically and mechanically perfect.

On receipt of 10 cents we will forward Fundamental Principles of Gynecological Electro-Therapy, by Geo. J. Engelmann, M.D.

All Goods Warrented as Represented.

Send postal for Illustrated Catalogue, and note names of the eminent physicians using our Instruments.

Medals Received at London,

*** ARTIFICIAL LIMBS ***

UNEQUALED FOR

Durability and **N**atural **A**ction,

RECOMMENDED BY

Surgeons and our many patrons, some of whom have worn them since 1850.

Legs Furnished to Soldiers and Sailors on Government Order.

B. GILDERSLEEVE,

[Successor to] 629 SIXTH AVENUE,
HENRY W. SHAW. New York City

Paris and Philadelphia.